5-209.14

RESPONSES TO OHIO EPA TECHNICAL REVIEW COMMENTS ON THE DRAFT (REVISION C, NOVEMBER 1997) INTEGRATED REMEDIAL DESIGN PACKAGE FOR AREA 1, PHASE II

1726

IMPLEMENTATION PLAN FOR AREA 1 PHASE II SOIL CHARACTERIZATION AND EXCAVATION PROJECT (20710-PL-0002, Revision C, November 1997)

1) Commenting Organization: OEPA Commentor: OFFO
Section #: General Comment Pg. #: Line #: Code: C
Comment: Ohio EPA recommends a group walk-down of the A1PII project area during the comment response period. The effort would assist in resolving comments and ensuring that all facilities, structures and issues had been addressed in the design.

Response: Agreed.

Action: DOE arranged a walk-down of the A1PII Project area during the April 7-8, 1998, joint EPA-FEMP Soil progress meeting.

2) Commenting Organization: OEPA Commentor: OFFO
Section #: General Comment Pg. #: Line #: Code: C
Comment: The IRDP should be revised to incorporate the design for the aesthetic barrier to be placed along Willey Road. Incorporation of the barrier design would ensure coordination of activities and usage of property. In addition, it would provide assurances to local residents that a view similar to that generated by the South Field Extraction/Optimization project would not be repeated. All efforts possible should be extended to expedite placement of the aesthetic barrier to reduce the visual impact of activities.

Response: Because the scope and funding of the aesthetic barrier is separate from A1PII, a separate work plan for the barrier was prepared. The Draft Aesthetic Barrier Work Plan was submitted to U.S. EPA and Ohio EPA on March 24, 1998. The location of the barrier is displayed on the current FEMP land use map and will be included in the appropriate A1PII IRDP design drawings. In addition, there is an ongoing effort to coordinate A1PII activities with installation of the barrier. Construction of the aesthetic barrier is scheduled for Fall 1998, assuming the area for the proposed barrier along Willey Road is certified as clean.

Action: The proposed barrier location will be shown on one of the existing figures. The Draft Aesthetic Barrier Work Plan will be referenced in Section 3.1 of the A1PII IRDP.

3) Commenting Organization: OEPA Commentor: OFFO
Section #: General Comment Pg. #: Line #: Code: C
Comment: Previously, DOE had committed to providing Ohio EPA electronic copies of design submittals. However that last few designs have been submitted without such electronic copies. Ohio EPA requests DOE resume submittal of electronic copies with or shortly after the paper version.

1

1726

Response: Noted.

Action: DOE will provide Ohio EPA uncontrolled electronic copies of any information requested.

4) Commenting Organization: OEPA Commentor: OFFO
Section #: General Comment Pg. #: Line #: Code: G
Comment: In general, the dust control measures outline in this plan appear to be adequate to minimize the generation of fugitive dusts and if properly implemented would achieve compliance with the 'best available technology' (BAT) requirement of the Ohio Administrative Code (OAC) 3745-31-05(A)(3). This rule has been cited as an ARAR in both the Operable Unit 2 and Operable Unit 5 RODs.

It has been our position that compliance with BAT will be demonstrated by attaining the visible particulate emission limitations of OAC 3745-17-12. These limitations are more stringent than OAC 3745 -17-07 (B)(4),(5), and (6) which are referenced in Table A-2 of the Plan. Test methods to measure compliance with the rule can be found in 40 CFR Part 60 Appendix A Method 22 and Method 9.

There are three air emission documents referenced in this plan. The Technical Specifications in several locations refers to 'Part 6', but we have not been able to locate it in your submittal. The Contractor is to submit a Dust Control Plan. Ohio EPA would like the opportunity to review and approve this Plan. There are several references to "Fugitive Dust Control Requirements" (RM 0047)". Please provide a copy of this, too.

Response: The fugitive dust control BAT requirements and fugitive emission limits for the FEMP have been determined and documented via multiple correspondences between Ohio EPA and DOE on the subject (the most recent of which was DOE-1133-97, dated June 27, 1997). Subsequently, those dust control requirements and limits have been re-presented in multiple documents to disseminate that information to the various FEMP implementing projects and organizations. Among those are the following:

- RM-0047, "Fugitive Dust Control Requirements" — presents the fugitive dust control BAT requirements and fugitive emission limits, making them applicable sitewide to the FEMP projects. Presents the same BAT summary table as found in DOE-1133-97. Also presents citations to the pertinent regulations (OAC and 40 CFR) and measurement methodologies contained therein and mentioned in the comment.

- Sitewide Excavation Plan (SEP, 2500-WP-0028), Section 5.1.2.2 — presents the BAT requirements and fugitive emission limits (from the BAT determination and RM-0047), as they apply to and are to be implemented by the Soil Characterization and Excavation Project. Presents as Table 5-1 the same (reformatted) BAT summary table as found in DOE-1133-97 and RM-0047.

- Part 6 — contract documents between FDF and the contractor. Among many topics and items, one subsection/exhibit of Part 6 emphasizes the importance of proactive dust suppression, communicates the dust control requirements and fugitive emission limits established by the BAT determination, requires submission from the contractor of a Dust Control Plan, and provides details for what is to be included in that plan. That subsection of Part 6 was developed from RM-0047 and subsection 5.1.2.2 of the SEP. In accordance with the contract, the contractor must submit a Dust Control Plan to FDF for review and approval to ensure compliance with requirements presented in Part 6, and thus compliance with the site BAT determination. This subsection of Part 6 standardizes language to be used as boilerplate in future contract solicitations.

Because Ohio EPA has reviewed and approved the BAT determination for the FEMP, and has reviewed the dust control requirements (developed from the BAT policy) applicable to SCEP projects as put forward in the SEP, it is therefore appropriate for DOE alone to review and approve the contractor's Dust Control Plan. RM-0047 was provided to the U.S. EPA and Ohio EPA with the April 7, 1998 submission of "Transmission of Draft Final Integrated Remedial Design Package (IRDP) for Area 2, Phase I (Southern Waste Units)." DOE anticipates that Ohio EPA will continue its field oversight of soil remediation activities, including implementation of dust control.

Action: No action.

5) Commenting Organization: OEPA Commentor: OFFO
Section #: General Comment Pg. #: Line #: Code:
Comment: The data presentation throughout the Plan is very hard to use even when the data are present. The tabulated data is hard to correlate with the data presented in the figures. At times, there was much more data in tables than is presented in the figures. The tabulated data is very hard to use and interpret and is not much help in our review. We have asked for electronic data files in another comment.

The most helpful and accessable method of displaying these data are posting them to the Soils Remediation Project web site. This is very easy to use. However, some of the links to the various pages are not active. The displays of both the discrete data and the RTRAK results are very helpful as is the interactive map/data base access features for Area 2 Phase I.

Response: While all the data used in support of the IRDP is presented either in tables or figures, interpretation of the data is difficult in this format.

Action: All data tables will be posted on the Fernald File Transfer Protocol (FTP) site. All figures will be posted on the Soils Remediation Project Web Site and/or on a Fernald Web Page. DOE will work towards developing hyperlinks on the Web Page to query the Sitewide Environmental Database. For example, a figure would show the sample locations, and the site visitor could click on an individual location to see the sample results for that location. The format, presentation, and development schedule could be developed jointly by DOE, U.S. EPA and Ohio EPA.

6) Commenting Organization: OEPA Commentor: OFFO
Section #: Exec. Sum. Pg. #: ES-1 Line #: 25-26 Code: C
Comment: It is unclear from the document which OU3 Implementation Plan will address the trap range building or the schedule for it's removal. Please clarify.

Response: The Trap Range Building (Building 28F) was removed by Facilities Closure and Demolition Project (FC&DP), as scoped in the "Implementation Plan for the Sewage Treatment Plant Complex-Draft" (55210-PL-0001) in the Summer of 1998. The foundation will be removed by the A1PII STP Excavation contractor.

Action: Clarification will be made in the next revision of the A1PII IRDP.

7) Commenting Organization: OEPA Commentor: OFFO
Section #: Exec. Sum. Pg. #: ES-4 Line #: 19-20 Code: C
Comment: Ohio EPA was under the impression that DOE would be including restoration design within the IRDP. Additional clarification should be provided regarding the submittal which will include restoration plans for A1PII. In order to achieve the greatest efficiency in incorporating restoration into the remediation, it seems appropriate to include restoration planning in the IRDP.

Response: The restoration of Area 1, Phase II (A1PII) will occur after borrow material activities in A1PII for the OSDF are complete. Restoration design for A1PII will consider the post-excavation topography. The restoration schedule, which was proposed to the Fernald Natural Resource Trustees in December 1997 and incorporated into the FY99 Replan, includes restoration design in 2004 and design implementation in 2005.

Action: Text will be added to the IRDP to indicate the separate submittal of the restoration design and to clarify the planning for A1PII restoration design.

8) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: Tab. of Contents Pg. #: ii Line #: Code: E
Comment: Section numbers 2.3.4.1 and 2.3.4 are repeated in the numbering system.

Response: Noted.

Action: The text has been revised.

9) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: Tab. of Contents Pg. #: ix Line #: Code: E
Comment: "CSSA", "ISSA", "SSA", and "FRL" are not included in the List of Acronyms and Abbreviations.

Response: Noted.

Action: "CSSA" and "FRL" are included in the List of Acronyms and Abbreviations. References to "ISSA" and "SSA" have been deleted from the text.

4

10) Commenting Organization: OEPA Commentor: OFFO
Section #: 1.0 Pg. #: 1-1 Line #: 23-27 Code: C
Comment: The document should be revised to note A1PI is awaiting a DOE revision and submittal to EPAs. DOE received comments from the agencies months ago regarding the A1PI certification report. EPA approval is not pending, DOE response is pending. Additionally, the paragraph incorrectly suggests the sediment traps are the only outstanding issue within A1PI. The remaining portions of the North Access Road are an outstanding issue as well.

Response: Noted; however, with the May 1998 submittal of the revised A1PI Certification Report and responses to comments, the text as it reads is now valid.

Action: The text has been revised to include reference to the North Access Road.

11) Commenting Organization: OEPA Commentor: OFFO
Section #: 1.0 Pg. #: 1-3 Line #: 21-23 Code: C
Comment: The text should be revised to incorporate the option of disposal at the Nevada Test Site.

Response: Noted.

Action: The has been revised to read "...or will be shipped offsite for *either disposal at NTS, or* treatment and disposal at a permitted commercial disposal facility (PCDF), *as appropriate*." [italics used to emphasize revisions]

12) Commenting Organization: OEPA Commentor: OFFO
Section #: 1.2 Pg. #: 1-4 Line #: 11-14 Code: C
Comment: The text should reference the recently developed SEP methodology for determining if off-site investigation/remediation/certification is appropriate.

Response: Noted.

Action: The text has been revised for consistency with the indicated recently developed SEP methodology.

13) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 1.0 Pg. #: 1-5 Line #: Code: C
Comment: A figure showing the STP area exclusively should be included and referenced in the discussion in Section 1.2.1.1.

Response: Text in the line immediately preceding Section 1.2.1.1 indicates that detailed information about the A1PII facilities is provided in Section 2.1 of the Implementation Plan, along with associated figures.

Action: No action.

5

14) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 1.0 Pg. #: 1-6 Line #: 26 Code: E
Comment: The reference to Section 2.1.1 is unclear and should be checked. The discussion in Section 2.1.1 does not appear relevant to the discussion in the referenced text.

Response: Comment is assumed to apply to Section 1.2.1.3, which is at the indicated page and line. Both the table and section referenced are part of the SEP.

Action: Text has been revised to read "...(see Section 2.1.1, and Table 2-1, of the SEP)."

15) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 1.0 Pg. #: 1-6 Line #: 27 Code: C
Comment: The indicated area and volumes of lead contaminated soil at the Trap Range are inconsistent with the amounts given in Technical Specification 3.2.A.1. For example, the total remediation area given in the text is "over approximately 3.7 acres" which contradicts the 3.5 acres indicated in the specification.

Response: Noted.

Action: The total area identified for lead remediation has been recalculated as approximately 4.6 acres. This number reflects the sum of two remediation areas within the Trap Range. These areas have been formed into manageable geometric shapes since earlier estimates.

16) Commenting Organization: OEPA Commentor: OFFO
Section #: 1.2.1.4 Pg. #: 1-7 Line #: 20-21 Code: C
Comment: The text suggests the steel lattice tower and wood poles will be removed "before A1PII remediation begins." Is this correct or will they be removed prior to remediation of the STP area? Some A1PII activities have already been initiated such as sampling and soil removal in the areas near the OSDF.

Response: The FEMP and Cincinnati Gas & Electric could not come to an agreement concerning safety requirements in the take down of electric cables hanging from the lattice tower. Therefore, the lattice tower take down has been removed from the STP complex FC&DP scope and placed in a miscellaneous small structure D&D project. The lattice tower will be taken down once an agreement can be reached.

In terms of this project, the A1PII STP Excavation contractor will stay 25 feet from the legs of the lattice tower. The majority of wood poles within STP Excavation work limits were cut to a height of two feet above grade and painted for easy visibility by FC&DP. Remaining wood poles, including below grade portions, will be removed by the STP Excavation contractor. Section 2.0 presents a more detailed explanation of these activities.

Action: No action.

17) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 1.0 Pg. #: 1-12 Lines #: 9,10,33 Code: E
Comment: Section references are incorrect; 3.1.5 and 3.3.5 should replace 3.1.4 and 3.3.4 in lines 9 and 10, respectively, and 3.1.4 and 3.3.4 should replace 3.1.3 and 3.3.4 in line 33.

Response: Noted.

Action: The text has been revised and appropriate section references have been included.

18) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 1.0 Pg. #: 1-13 Line #: 33 Code: C
Comment: The perched and storm water treatment sequence presented in the referenced text should be revised to include sediment filtration prior to GAC.

Response: The approach to management of perched water and other remediation-generated water from the Sludge Drying Beds/STP excavation area (A1PII Sector 3) has changed, as has the treatment sequence; see the response and action to Comment No. 73.

Action: Text has bttn revised accordingly.

19) Commenting Organization: OEPA Commentor: OFFO
Section #: 1.4 Pg. #: 1-4 Line #: 21-23 Code: C
Comment: It would seem appropriate and most efficient to complete restoration of any area in which remedial activities have been completed rather than wait for the end of OSDF construction. If restoration is to be efficiently integrated with remediation, it should follow immediately or during the next field season.

Response: Restoration activities will begin as soon as practical following the completion of remedial activities and will be coordinated with OSDF related activities, such as development of the borrow area, to ensure these activities do not preclude starting restoration. Also see the response to Ohio EPA Comment No. 7.

Action: No action.

20) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 1.0 Pg. #: 1-14 Line #: 23 Code: E
Comment: Section reference 3.1.7 and 3.3.7 should be replaced by 3.1.8 and 3.3.8 respectively.

Response: Noted.

Action: The text has been revised and appropriate section references have been included.

21) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.0 Pg. #: 2-1 Line #: 42 Code: C
Comment: Ohio EPA believes it is essential for the complete pre-design data set to be utilized in developing the design. The revised design package should include and incorporate all pre-design investigation data.

Response: The surface excavation plan in the IRDP has been revised to ensure the excavation of this area. Additional data will be collected as part of certification readiness testing.

Action: This issue will be addressed in the Certification Design Letter for Sector 3.

22) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.2.1 Pg. #: 6 Line #: 27-33 Code: C
Comment: Ohio EPA believes the approach utilized to evaluate contamination may have significantly underestimated the extent of needed remediation. Simply sampling for uranium leaves out two very important contaminants, radium and thorium, that may very well drive the surface remediation in the area of the STP, including off-site areas. Ohio EPA recommends additional analysis for radium and thorium to evaluate the need for off-site sampling.

Response: Samples from the predesign investigations are being analyzed for radium-226 and thorium-232. The results of these analyses will be provided in the revised IRDP. If samples show contamination by either isotope, the data will be modeled and, if necessary, additional data will be collected to fill any potential data gaps. See also related Comments Nos. 30, 47, 84, and B-8's 105.

Action: Historical predesign samples will be analyzed and reported for isotopic radium and thorium.

23) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 2.0 Pg. #: 2-2 Line #: 16 Code: E
Comment: Figure B-2 should replace B-3.

Response: Noted.

Action: The figure has been re-numbered as Figure 2-18.

24) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 2.0 Pg. #: 2-6 Line #: 3 Code: E
Comment: The referenced acronym "PEPS" should be replaced with the acronym "PSP."

Response: Noted.

Action: Text has been rewritten and comment is no longer applicable. "PSP" is included in the List of Acronyms and Abbreviations.

25) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 2.0 Pg. #: 2-7 Line #: 22 Code: E
Comment: Delete the text "at locations" from the sentence beginning on this line.

Response: Noted. Text has been rewritten and comment is no longer applicable.

Action: No action.

8

26) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.2.2 Pg. #: 2-8 Line #: 10-11 Code: C
Comment: The text should include a discussion of the below 400 ppm total lead concentration which failed TCLP. This information is relevant if the soil would be removed for any reason including excavation of the borrow pit.

Response: The sample in question is from location #28 at a depth of 6 inches to 1 foot (sample ID A1PIITRAP-28-2-M), which was analyzed in duplicate. The TCLP results were 7,220 μg/L and 1,630 μg/L; one value is above the TCLP regulatory threshold value (5,000 μg/L = 5 mg/L), and one is below. The results of the lead analysis for this sample were 239 mg/kg and 281 mg/kg, respectively. Review of the analytical data does not indicate which value is more accurate. All soil within the Trap Range with total lead concentration above 200 mg/kg (the BTV value) will be stabilized and excavated.

Action: The text has been rewritten extensively since the previous submittal; a discussion of lead contaminated soil is provided in Section 2.4.2.

27) Commenting Organization: OEPA Commentor: OFFO
Section: 2.2.2 Pg. #: 2-8 Line #: 19-28 Code: C
Comment: This text is not consistent with the specifications package which describes removal of the >200 ppm soil for use in the OSDF. This area lies within the planned borrow area suggesting it will be excavated at some future point thus generating a hazardous waste. Additionally, it will be important to remove and dispose of the >200 ppm lead soils because the BTV concentration of 200 ppm.

Response: All A1PII lead-contaminated soils failing the RCRA TCLP criteria of 5 mg/L or exhibiting lead concentrations above the 200 mg/kg BTV concentration will be stabilized prior to excavation and disposal in the OSDF.

Action: The discussion of the strategy for delineating lead contaminated soils is in Section 2.4. The strategy for evacuating lead contaminated soils is located in Section 3.1.4.

28) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.2.3 Pg. #: 2-9 Line #: 14-15 Code: C
Comment: Ohio EPA understands that Tc-99 results were detected adjacent to one of the trickling filters. This section must be revised appropriately as well as revising the excavation and disposal plans. This is a good example of the need to have a complete pre-design data set before development and submittal of design packages.

Response: When the Implementation Plan was first drafted, not all the (Phase 1) data had been received from the lab. Preliminary (unvalidated) results from some sample analyses indicated that technetium-99 was not present, but this determination could not be certain without all the final sample data. To facilitate development of the remedial design (excavation depth, ASCOC selection, etc.), the assumption was made that technetium-99 was not present. In the text and Appendix B, this temporary data gap was acknowledged. Justification that technetium-99 would not be detected was provided in Section 2.2.3, as well as in Appendix B.

The final Phase 1 data seemed to support the conclusions in all areas except the area near the STP Incinerator. To address the technetium-99 detected there, a variance to the Pre-Design Investigation PSP for Investigation of Technetium-99 in the Sewage Treatment Plant was completed to provide for additional (Phase 2) sampling to investigate the unexpected technetium-99 detections. This variance was submitted to the U.S. EPA on March 10, 1998. Resulting data from the Phase 2 sampling indicated technetium-99 contamination to be more prevalent than expected. The data indicated generally surficial soil contamination surrounding some of the waste water treatment units and in an area to the north. To bound the extent of this contamination, another PSP variance for Phase 3 sampling was prepared. The results of the Phase 3 sampling revealed that all areas except around the trickling filters had been sufficiently bounded by the Phase 3 sampling. As a result of the Phase 3 sampling, the extent of contamination surrounding the trickling filters was refined. In conclusion, technetium-99 contamination in the STP area is limited to the top 6 inches of soil surrounding the trickling filters in an area west of the primary settling basins, and in two areas in the north portion of the STP.

Action: The final results of the technetium-99 investigation in the STP area are provided in Section 2.3.2.2.

29) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 2.0 Pg. #: 2-10 Line #: 4 Code: E
Comment: Indicate the units for the total uranium detection limits discussed in this sentence to be "ppm".

Response: The text has been revised extensively since the previous submittal, and this comment is no longer directly applicable.

Action: Corrections will be made in the next revision of the document to present the VOC results in units of μg/L (ppb), and total uranium in units of mg/L (ppm). VOCs are discussed in Section 2.1.3.5.

30) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.2.5 Pg. #: 2-10 Line #: 22-28 Code: C
Comment: Again, analysis for only total uranium may have led significantly underestimating the need for conducting remediation on- and off-property for thorium and radium. Additional data on these contaminants is needed.

Response: See the responses to OEPA Comment No. 22, and to related OEPA Comments Nos. 47, 84 and 105b.

Action: See the action for OEPA Comment No. 22.

31) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 2.0 Pg. #: 2-11 Line #: 8 Code: E
Comment: Figure 1-2 could not be located in Appendix B-8.

Response: Appendix B-8 has been deleted from the Implementation Plan.

Action: The referenced figure is provided as Figure 2-12 and is referenced in Section 2.2.2.

32) Commenting Organization:- OEPA Commentor: HSI-GeoTrans
Section #: 2.0 Pg. #: 2-12 Line #: 29 Code: E
Comment: "Storm Sewer Outfall Ditch SSOD" should be revised to read "Storm Sewer Outfall Ditch (SSOD)."

Response: The text has been revised extensively since the previous submittal. The comment is no longer directly applicable.

Action: The SSOD is now defined in Section 2.1.3.1.

33) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 2.0 Pg. #: 2-14 Line #: 13-19 Code: C
Comment: Figure 2-9 indicates a 26 foot deep excavation at the primary settling basins which is contradiction to the 20 feet stated in the referenced text. The 20 foot excavation depth is indicated at several other places in the text. If the 26 foot figure is correct, only four feet of till will remain over the GMA rather than the 10 foot thickness indicated in the text.

Response: The text has been revised extensively since the previous submittal, and this comment is no longer directly applicable.

Action: Section 2.1.3.2 states that approximately 5-10 feet of till will remain over the GMA rather than 10 feet. This is consistent with Figure 2-38 (formerly Figure 2-9).

34) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 2.0 Pg. #: 2-16 Line #: 30 Code: E
Comment: The figure reference indicated in the sentence ending on this line should be Figure 2-3 rather than 2-2.

Response: The text has been revised extensively since the previous submittal, and this comment is no longer directly applicable.

Action: Figure 2-3 is now Figure 2-8, and a discussion is contained in Section 2.1.3.5.

35) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 2.0 Pg. #: 2-17 Line #: 4 Code: E
Comment: The sentence beginning on this line does not make sense.

Response: The text has been revised extensively since the previous submittal, and this comment is no longer directly applicable.

Action: The text in Section 2.1.3.5 reads "...(uncontaminated) perched water, *which then* migrates vertically to the GMA." [italics used to emphasize revision]

36) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 2.0 Pg. #: 2-17 Line #: 9 Code: E
Comment: The paragraph beginning on this line should be checked in its entirety for verb tenses and plural versus singular word forms (e.g., "11 radio nuclides, 8 inorganics...").

Response: The text has been revised extensively since the previous submittal, and this comment is no longer directly applicable.

Action: The text in Section 2.1.3.5 reads: "As summarized in the OU5 RI, a total of 24 constituents (11 radionuclides; 8 inorganics, VOCs, and semi-VOCs; and 3 general chemistry parameters) were detected at above-background concentrations in the perched water in the STP Area."

37) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.4.1 Pg. #: 2-19 Line #: 13-14 Code: C
Comment: This section is supposed to discuss Sector 1 though Sector 2 is referenced. Please clarify.

Response: The text has been revised extensively since the previous submittal, and this comment is no longer directly applicable.

Action: The corrected text is provided in Section 2.1.1.1.

38) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.4.1 Pg. #: 2-19 Line #: 16-24 Code: C
Comment: To the extent practical, Ohio EPA recommends limiting the number of additional roads installed. Additional gravel roads will result in more removals necessary to implement restoration activities and will require additional dust control activities during remedial actions.

Response: Noted.

Action: The number of additional gravel areas needed to support remediation was minimized in A1PII design.

39) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.4.1 Pg. #: 2-20 Line #: 7-10 Code: C
Comment: a) The text should discuss whether appropriate cultural resource reviews of the foundations have been conducted. Additionally the known foundations should be included in the figures and drawings. b) How will DOE differentiate between debris that results from former building foundations and any debris that may have been placed in the field as a result of site operations?

Response: a) Noted; discussion has been inserted in Section 2.1.1.1. The locations of all historic and prehistoric archeological sites within A1PII (Sector 2) are depicted in Figure 1 of the Phase III (Data Recovery) Archeological Investigations of Sites 33Ha646, 33Ha654, and 33Ha662 Fernald Property East Field Area, Crosby Township, Hamilton County, Ohio, dated August 20, 1996. The

locations of foundations do not need to be included in the IRDP figures and drawings because their presence will not alter or impact soil excavation activities in the OSDF Borrow Area.

b) All at- and below-grade debris including foundations will be managed as debris and therefore do not need to be differentiated. All such debris will be subject to visual inspection and any necessary size reduction, as specified in the OU3 ROD, prior to OSDF placement.

Action: a) The following text has been added in Section 2.1.1.1:

"...in Sector 1. The FEMP was identified as eligible for inclusion on the National Register of Historic Places during Phase I and Phase II surveys of A1PII. DOE-FEMP consulted with the Advisory Council on Historic Preservation and the Ohio Historic Preservation Office (OHPO), and Phase II Data Recovery was conducted pursuant to OHPO guidelines. Through this process, DOE-FEMP complied with Sections 106 and 110 of the National Historic Preservation Act. As part of this process, foundations in Area 1, Phase II, Sector 1 were investigated for the presence of cultural resources. Surveys completed in April 1995 determined that no archeological sites were eligible for the National Register of Historic Places."

b) The text was revised to clarify that the foundations will be managed as debris.

40) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.4.2 Pg. #: 2-20 Line #: 19-24 Code: C
Comment: a) The referenced sediment traps are not presented on Figure 2-5 as suggested in the previous paragraph. b) As stated in other comments, Ohio EPA does not concur with the proposed course of action for the sediment traps and recommends DOE revise the approach to utilize the area for wetland mitigation.

Response a) Section 2.1.1.2 provides a cross-reference to Figure 2-3, which presents the A1PI Sediment Traps ST-2 and ST-3.

b) Noted.

Action: a) Section 2.1.1.2 has been rewritten to reference the correct figures.

b) Text has been revised to indicate that the A1P1 sediment traps will be used to the maximum extent possible for wetland mitigation. Design of the wetland mitigation project in that area has been initiated and is anticipated to be complete in 1998. This discussion is provided in Section 2.1.1.2.

41) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.4.1 Pg. #: 2-21 Line #: 13-17 Code: C
Comment: It is unclear if the reference to Sector 2 in this paragraph is intentional or a typo. Please clarify when drainage tile will be removed.

Response: The text referencing Sector 2 has been moved to Section 2.1.1.2. During the construction of each OSDF cell, the agricultural drainage tiles within the footprint area of each cell will be excavated by the OSDF contractor. All known agricultural drainage tiles outside the footprint area of each cell will be excavated by the A1PII excavation contractor.

Action: The revised text is provided in Section 2.1.1.2.

42) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.4.1 Pg. #: 2-21 Line #: 19-24 Code: C
Comment: Additional detail should be provided regarding the approach to be used for certifying the road. As noted in Ohio EPA's comments on the A1PI, we will not approve a certification report that includes areas not yet removed/remediated.

Response: The southern portion of the road will be excavated during construction activities for OSDF Cell 3. The northern portion (beginning at the northern edge of OSDF Cell 1) of the road will be remediated at the end of OSDF construction, and will be addressed under Area 10. The approach will be consistent with the resolution of the A1PI certification. This text has been moved to Section 2.1.1.2.

Action: The text has been revised in accordance with the response. Additional details on the approach will be discussed in the Certification Design Letter for Sector 3.

43) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.4.2 Pg. #: 2-21 Line #: 26-29 Code: C
Comment: What data does DOE have to support an assessment that backfill used for the leachate conveyance line was not contaminated? How will this issue be addressed?

Response: Per discussion with OSDF Project personnel, the backfill used for leachate conveyance line installation is known to be clean. Where the leachate conveyance line was installed through certified clean soil, the soil that was excavated for line installation was used as backfill. Where the line was installed through an uncertified soil area, clean backfill from an off-site vendor was used.

Action: No action.

44) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.4.1 Pg. #: 2-25 Line #: 20-24 Code: C
Comment: It is unclear whether the gravel roads in the vicinity of the STP existed prior to the STP removal action. If the roads existed prior to the removal action and were not remediated with adjacent soils then it is likely contamination exists within and/or under the road beds. Unless physical samples were collected of the road bed material and subgrade material then sufficient data is not available to support the conclusion that the material is below FRLs.

Response: The roads in the vicinity of the STP area are paved and existed as paved roads during the referenced Removal Action 14. The roadways were not excavated as part of that Removal Action. The concern of contamination in the gravel is valid, and was

addressed as part of the Miscellaneous Areas Predesign Investigation PSP. In this PSP, gravel samples were taken below the pavement in roadways in the STP and the STP access road. The results indicated no contamination above the FRLs in the roadway gravel.

Action: No action.

45) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.3.4 Pg. #: 2-26 Line #: 6-10 Code: C
Comment: The text suggests that Figures 2-7 & -8 delineate the wells to be abandoned. The figures do not differentiate between to be abandoned and remaining wells. The figures should be revised to show which wells are being abandoned.

Response: The discussion of monitoring wells has been moved to Section 2.1.2. Figures 2-7 and 2-8 have now become Figures 2-5 and 2-6, respectively. Monitoring wells to be abandoned are identified in the STP Excavation Construction design drawings.

Action: Text has been revised to clarify what information is presented by Figures 2-5 and 2-6.

46) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.4.1 Pg. #: 2-27 Line #: 11-12 Code: C
Comment: The IRDP should be revised to incorporate all final data. Final data is needed to support the design.

Response: As indicated in the response to Ohio EPA General Comment No. 1 on the October 1997 A2PI IRDP, DOE has committed to providing updated data in improved formats with the next revision of the IRDPs, and incorporating the improved formats into future IRDPs. As indicated in the response to Ohio EPA Comment No. 64 on the October 1997 A2PI IRDP, DOE has committed to providing pre-design data adequate to support 90 percent design packages (IRDPs) in the future; if this commitment cannot be met, an extension may be requested for the 90 percent design submittal.

Action: This revision of the IRDP includes all validated data, statistics, text, and figures tying design with data.

47) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.4.1 Pg. #: 2-27 Line #: 17-18 Code: C
Comment: Ohio EPA believes this assumption may have led to a substantial flaw in the design. Considering the operation of the STP incinerator and the results of the A1P1 remediation, it is likely that in most areas of A1PII the excavation driver will be radium or thorium not uranium. Ohio EPA recommends a complete reassessment of the design and pre-design sampling efforts to evaluate the effects of these contaminants on remediation.

Response: See the responses to OEPA Comment No. 22, and related OEPA Comment Nos. 30, 84 and 105.

Action See the actions for OEPA Comment No. 22.

15

48) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.4.1 Pg. #: 2-27 Line #: 28-31 Code: C
Comment: The area needs to be bounded for this design submittal. The design packages is supposed to define the remediation activities thus defining the boundaries of excavation is essential for agency concurrence. Revise the document to incorporate sufficient data for excavation bounding.

Response: See the response to OEPA Comment No. 46. The surface excavation plan in the IRDP has been revised to ensure the excavation of this area. Additional data will be collected as part of certification readiness testing.

Action: This issue will be addressed in the Certification Design Letter for Sector 3. The results of the additional sampling conducted as part of the certification readiness testing will be discussed in the text and incorporated into the excavation design.

49) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.5.2 Pg. #: 2-28 Line #: 18-22 Code: C
Comment: Ohio EPA recommends excavation of the soils out to the 200ppm contour. This excavation would be consistent with the BTV criteria. If the 200ppm contour is not used then DOE needs to develop a method to track the ultimate disposition location of this soil to ensure it is not utilized in an area that would be subject to ecological receptors. Additionally, the excavation must at a minimum encompass all lead that may fail the TCLP test. The reason for this is the soil will be excavated either for remediation or for borrow and would thus generate a hazardous waste.

Response: See the response to OEPA Comment No. 27.

Action: See the action for the referenced comment.

50) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 2.0 Pg. #: Fig. 2-3 Line #: Code: C
Comment: This figure should be revised to indicate that the Great Miami Aquifer material shown is coarse grained and is unsaturated.

Response: Noted.

Action: Figure 2-3 has been revised and is included in this submittal as Figure 2-8.

51) Commenting Organization: OEPA Commentor: OFFO
Section #: Figure 2-5 Pg. #: Line #: Code: C
Comment: The figure should be revised to label/include all piles, sediment basins, parking lots, trailers, etc. At present it does not appear to be a comprehensive presentation of all structures/facilities.

Response: The figure is not intended as a comprehensive presentation of all structures and facilities. Rather, it is meant as an illustration of key at- and below-grade structures and facilities within the sector. Construction drawings in the design package provide a comprehensive presentation of these items for design, bid, and execution.

Action: No action.

52) Commenting Organization: - OEPA Commentor: OFFO
Section #: Figure 2-6 Pg. #: Line #: Code: C
Comment: The figure should be revised to label/include all piles, sediment basins, parking lots, trailers, etc. At present it does not appear to be a comprehensive presentation of all structures/facilities. Additionally, show the lattice tower to be removed.

Response: See the response to Comment No. 51.

Action: No action.

53) Commenting Organization: OEPA Commentor: OFFO
Section #: Figure 2-7 Pg. #: Line #: Code: C
Comment: In order to ensure it is protected, the figure should be revised to include Ohio EPA's air particulate monitor station along the eastern fence line of the site.

Response: Noted.

Action: Ohio EPA air particulate monitoring station FNAPS02, located along the eastern FEMP fenceline at NAD83 coordinates E1352069 and N483433, has been added to and labeled on Figure 2-6 (formerly 2-7). It will be indicated in the design documents that air monitoring stations within the limits of work are to be protected.

54) Commenting Organization: OEPA Commentor: OFFO
Section #: Figure 2-12 Pg. #: Line #: Code: C
Comment: A figure should be provided within the section that provides bounding data for all the areas shown to exceed the FRL.

Response: See the response to Comment No. 46.

Action: See the action to the referenced comment.

55) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 3.0 Pg. #: 3-4 Line #: 34 Code: E
Comment: The text should be revised from "construction drawings Dwg G0001" to "construction drawings (Dwg G0001)."

Response: Section 3.0 has been revised extensively. The drawing references have been changed.

Action: Errors have been corrected in this revision of the document.

56) Commenting Organization: OEPA Commentor: OFFO
Section #: 3.1.2.3 Pg. #: 3-5 Line #: 33-35 Code: C
Comment: Please describe how stump removal within the Trap Range remediation area will be coordinated with treatment. Describe how removal of stumps will affect the ability to complete treatment.

Response: There are no stumps within stabilization/excavation limits in the Trap Range which require removal.

Action: No action.

57) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 3.0 Pg. #: 3-6 Line #: 28 Code: E
Comment: For clarity, the culvert mentioned in the referenced text should be identified as a five pipe culvert as indicated on Dwg G0019.

Response: Comment is assumed to apply to the former Section 3.1.2.5, which was at the indicated page and line.

Action: The text in Section 3.1 has been revised to identify the current three-pipe culvert design.

58) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 3.0 Pg. #: 3-7 Line #: 14 Code: E
Comment: The second "as appropriate" is redundant.

Response: Comment is assumed to apply to the former Section 3.1.2.6, which was at the indicated page and line.

Action: The text in Section 3.1 has been revised to read: "Other protective measures will be implemented as appropriate."

59) Commenting Organization: OEPA Commentor: OFFO
Section #: 3.1.4.2 Pg. #: 3-12 Line #: Code: C
Comment: The document does not sufficiently support the use of in-situ stabilization. Additional detail is required regarding additives, mixing, documented successes, etc. Phosphate stabilization of lead-contaminated soils is a proven technology when performed as a batch operation, but we are not aware of documented successes of this method applied in situ. The included detail is insufficient to provide concurrence with the treatment approach. Any treatability work plan must be reviewed and approved by the agencies as well as a treatment plan for the area. Ohio EPA is especially interested in evidence that treatment occurs rather than simple dilution or homogenization.

Response: As indicated in the April 7-8 joint EPAs-FEMP Soil Progress meeting, the method of lead soil stabilization selected may be an *in situ* or *ex situ* process. Regardless of whether the process is *in situ* or *ex situ*, the selected method and stabilization contractor must meet the following general performance criteria and demonstrate the ability to do so in the treatability study:

- Stabilized soil must meet TCLP requirements as a non-characteristic waste (i.e., TCLP <5 mg/L for lead).
- Method must minimize the volume increase and the dilution of lead contaminated soil to the extent practicable.

- Sampling strategy for verification of stabilization must have been previously accepted elsewhere by the U.S. EPA or a corresponding state environmental agency.
- Method must be cost-effective to implement.

Action: The A1PII Trap Range Treatability Study Report will be submitted to the agencies for information. Also see the response and action for Ohio EPA's Technical Specifications Comment No. 139.

60) Commenting Organization: OEPA Commentor: OFFO
Section #: 3.1.4.3 Pg. #: 3-12 Line #: 17-20 Code: C
Comment: The document should be revised to include the sampling details for confirmation that treatment has been successful. Information regarding sample number, location, statistics, etc. should be provided in the IRDP for agency review and approval.

Response: A PSP for verification of lead-contaminated soil stabilization with the above-mentioned criteria will be submitted to the regulatory agencies for review prior to its implementation.

Action: Submit PSP for verification of lead-contaminated soil stabilization for agency review.

61) Commenting Organization: OEPA Commentor: OFFO
Section #: 3.1.8 Pg. #: 3-14 Line #: Code: C
Comment: Ohio EPA believes the current seeding specification may negatively impact final restoration and should be revised. Ohio EPA proposes evaluating seeding/stabilization requirements based upon the duration the area will remain undisturbed. For areas that will be disturbed within a period of 2 years following seeding, Ohio EPA recommends use of a crusting agent for all soils going to the OSDF and for other areas use of temporary seeding (annual rye). For areas in which disturbance is not expected within 2 years, Ohio EPA recommends the use of native prairie grasses for revegetation and stabilization. Prairie grasses should be sown using a seed drill at a rate of 10 lbs/acre into a prepared bed and covered with blown straw mulch at a rate of 2 tons/acre. No fertilizer is recommended when planting these grasses. The grass mixture should include Canada Wild Rye, Little Bluestem, Big Bluestem, Indian Grass, Switch Grass, Side-Oats Grama; proposed ratio of 2:2:3:2:0.5:0.5, respectively. Use of native prairie grasses will hopefully support final restoration as well provide some temporary habitat to compensate for the large losses of habitat occurring during remediation. Ohio EPA hopes to work with DOE to optimize the seeding mixture and planting time over the course of site remediation, therefore to the extent practical contracts should allow flexibility in seeding mixture and planting time.

Response: As discussed in the February 5, 1998 meeting between DOE and Ohio EPA, DOE has committed to formalize guidelines for stabilizing various categories of disturbed soil areas at the FEMP in the Sitewide Excavation Plan.

Action: The text has been revised to reference the seeding guidelines in Appendix F of the SEP (Final, July 1998). Also see the action to Ohio EPA Comment No. 150.

62) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 3.0 Pg. #: 3-23 Line #: 39 Code: E
Comment: Revise "eclectic conduits" to "electric conduits."

Response: Noted.

Action: The corrected text is provided in Section 3.1.2.3.

63) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 3.0 Pg. #: 3-27 Line #: 1 Code: C
Comment: It is unclear why the existing 12-inch diameter AWWT line is referred to as an "effluent" line given its revised role as a transfer line.

Response: The referenced 12-inch line is an "effluent" line from the Storm Sewer Lift Station (Building 22B), which pumped stormwater to the Sewage Treatment Plant (STP). This line has been cut in the vicinity of the main substation, approximately 140 feet east of the Sanitary Lift Station (Building 25C). The water management system has been revised. The referenced line will not be used to convey remediation generated water from the STP excavation.

Action: A description of the water management system and transfer line is provided in Section 3.2 of the IP and the STP Excavation design drawings.

64) Commenting Organization: OEPA Commentor: OFFO
Section #: 3.3.2.9 Pg. #: 3-27 Line #: 1-7 Code: C
Comment: The section should include a discussion of the facility removal and certification.

Response: No equipment wash facility will be constructed under the revised approach to equipment washing.

Action: A description of the proposed equipment wash operation is presented in Section 3.2.1.9.

65) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 3.0 Pg. #: 3-27 Line #: 25 Code: E
Comment: Revise "...Sector 3 (Dwg 0012)" to "...Sector 3 (Dwg G0012)."

Response: Noted.

Action: The corrected text has been provided in this submittal.

66) Commenting Organization: OEPA Commentor: OFFO
Section #: 3.3.4.3 Pg. #: 3-34 Line #: 27-30 Code: C
Comment: The basis for conducting real-time scans after the excavation of 2.5' of soil is not clear to the reviewer. The real-time scan should occur prior to soil removal to ensure the 2.5' of material doesn't exceed WAC.

Response: Excavation will be performed in accordance with Approach D provided in the SEP. Predesign sampling and analysis were conducted to delineate above-WAC and above-FRL contamination. Excavation will be performed to the pre-established depth. Monitoring will be performed at the bottom of excavation to verify FRL attainment.

Action: The subject text has been revised in accordance with the response.

67) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 3.0 Pg. #: 3-35 Line #: 18 Code: C
Comment: What PID levels are considered to indicate the presence of free organic liquids? Above WAC contamination may be exist in the soil without the presence of free organic liquids. The section should be revised to be consistent with the OU5 ROD and the SEP.

Response: Appendix H of the SEP (Final, July 1998) includes a description of the field screening process to be used to detect high levels of organic compounds during excavation.

Action: A discussion consistent with the indicated SEP methodology is included in Section 3.2.5.3.

68) Commenting Organization: OEPA Commentor: OFFO
Section #: 3.3.4.5 Pg. #: 3-36 Line #: Code: C
Comment: The section should be reviewed/revised to ensure consistency with the SEP and WAC plan following their approval by the regulators.

Response: Noted.

Action: The text has been reviewed and revised as necessary for consistency with the SEP and WAC Attainment Plan.

69) Commenting Organization: OEPA Commentor: OFFO
Section #: 3.3.5.2 Pg. #: 3-38 Line #: Code: C
Comment: The section should be reviewed/revised to ensure consistency with the SEP and WAC plan following their approval by the regulators.

Response: See the response to Ohio EPA Comment No. 68.

Action: See the action to the referenced comment.

70) Commenting Organization: OEPA Commentor: OFFO
Section #: 3.3.7 Pg. #: 3-39 Line #: Code: C
Comment: Ohio EPA does not concur with the proposed strategy for HWMU closure. A minimum of 8 samples within the HWMU excavation is required. Additionally the samples must come from a combination of excavation floor and wall locations. The proposed sampling grid for the unit must be submitted to Ohio EPA for review and approval.

Response: The text on closure of HWMU No. 41, the Sludge Drying Beds, will be revised pursuant to the December 1997 and January 1998 discussions with U.S. EPA and Ohio EPA on the matter of HWMU closure. For HWMU closure, see the response to Ohio EPA General Comment 1 on the July 1997 Sitewide Excavation Plan; for sidewalls, see the response to U.S. EPA Original General Comment 6 on the July 1997 Sitewide Excavation Plan.

Action: The text in Section 3.2.2.1 indicates that the delineation of certification units (CUs), CU-specific certification COCs, and the certification sampling approach will be submitted in the Certification Design Letter.

71) Commenting Organization: OEPA Commentor: OFFO
Section #: 3.3.8 Pg. #: 3-39 Line #: Code: C
Comment: Insufficient design detail has been provided regarding the proposed A1PII borrow area. The IRDP should be revised to provide additional detail regarding depth of excavation, grading, drainage, etc.

Response: Geotechnical sampling is complete in the STP Backfill Borrow Area. The STP Excavation contractor will utilize the STP Backfill Borrow Area to obtain material to backfill utility trench excavations outside of the STP deep excavations. The contractor will be provided the geotechnical data for the area and will submit a Borrow Area Development Plan for development of the area. A plan of existing conditions is shown on the STP Excavation design drawings.

Action: No action.

72) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 3.0 Pg. #: General Line #: Code: C
Comment: The use of different contractors to excavate soil under stockpiles, provide stabilization, provide vegetative cover, etc. is confusing. For clarity, Section 3.0 should include a table specifying each contractor and their respective duties.

Response: Section 3.0 provides a description of the technical approach to be used to remediate A1PII, and reflects the current remediation strategy as well as the scope of work to be performed during execution of the following three design packages:

- Site Preparation
- STP Excavation
- Trap Range Remediation

Section 6.3 of the Implementation Plan discusses the Contractor Procurement and Award Strategy.

Action: Section 6.3 of the Implementation Plan was revised to include a description of the present contracting strategy for the RA design packages.

73) Commenting Organization: OEPA Commentor: OFFO
Section #: 3.4.4 Pg. #: 3-43 Line #: 24-25 Code: C
Comment: The appropriate standard for determining detection should be the Method Detection Limit rather than the CRDL in cases where the MDL is less than the CRDL.

Response: Text of Section 3.4.4 of the Implementation Plan, regarding management of perched water and other remediation-generated water from the Sludge Drying Beds/STP excavation area (A1PII Sector 3), was the topic of a meeting between Ohio EPA and DOE on March 20, 1998. In accordance with the consensus from that meeting, management of perched water (and other waters from this excavation area) under the STP Excavation Package will be determined by the Mixture Rule Exclusion [OAC 3745-51-03(a)(2)(e) and 40 CFR 261.3(a)(2)(iv)]. As the perched water from the Sludge Drying Beds/STP excavation area will be treated at AWWT Phase II, the critical issue is whether the tetrachloroethene concentration is less than the Mixture Rule Exclusion *de minimis* level for tetrachloroethene.

The text of the Implementation Plan was revised accordingly as presented in the action. Also see the response and action to U.S. EPA Specific Comment No. 28 and Ohio EPA Technical Specifications' Comment Nos. 137, 145, 154 and 161 for the changes to the corresponding technical specifications, as well as Appendix B-6's Comment Nos. 101 and 106, and Appendix C's Comment No. 111.

Action: Existing text of the Implementation Plan's Section 3.4.4 was deleted and replaced with text presented below (plus additional modification as needed to address the related comments and associated issues); Section 1.4 (see Ohio EPA Comment No. 18), Section 3.3.1.2 on the remediation-generated water transfer line, Section 3.3.2.8 on the remediation-generated water transfer system, and associated Tables 3-2, 6-1 and 6-2 were revised accordingly.

"3.4.4 Remediation-generated Wastewater Management
Wastewater will be produced during A1PII remediation activities from the perched water seepage into remediation excavations, including trenches resulting from existing underground utility removals, STP excavations, precipitation/storm water that falls or runs into the open excavations, residual waters from pipelines and STP operational units, and from equipment decontamination/wash. These waters have potential for containing uranium and, for waters within the Sludge Drying Beds/STP excavation area, tetrachloroethene. The following summarizes how these remediation-generated wastewaters will be managed and dispositioned:

Activity	Management	Disposition
A1PII Site Preparation work and other excavations outside the STP area not enumerated below	Perched water, storm water (including residual water in any agricultural drainage tiles encountered), equipment decontamination/wash waters, and other remediation-generated wastewaters will be collected in the excavation	Transfer to the nearest surface water course (ditch or channel) discharging to a sediment trap/basin
Excavations to remove agricultural drainage tiles outside the STP excavation area *and not traversing* the STP excavation area or an underground utility	Perched water and storm water (including residual water in the tiles) will be collected within the excavation	Transfer to the nearest surface water course discharging to the sediment trap/basin
Excavations to remove agricultural drainage tiles outside the STP excavation area *and traversing* the STP excavation area or an underground utility	Perched water and storm water (including residual water in the tiles) will be collected within the excavation	Transfer to the STP excavation sump
Excavations to remove underground utilities outside the STP excavation area	Perched water, storm water, residual water in the utilities, and other remediation-generated wastewater will be collected within the excavation	Transfer to the STP excavation sump
Excavation in the STP area	Perched water, storm water, residual waters in underground utilities, equipment decontamination/wash water, and other remediation-generated wastewater will be collected in the STP excavation sump	Transfer to OSDF Leachate Conveyance System (LCS) for conveyance to AWWT Phase II system

The STP Sludge Drying Beds were designated a HWMU because they managed sludge potentially containing the F-listed spent solvent tetrachloroethene (see Section 2.1.2). The highest detected concentration of tetrachloroethene in perched water in the Sludge Drying Beds/STP excavation area is 39 μg/L; however, pre-design investigation of STP area perched water did not detect tetrachloroethene or other volatile organic compounds (VOCs) (see Section 2.2.4).

The Hazardous Waste Mixture Rule Exclusion [OAC 3745-51-03(a)(2)(e) and 40 CFR 261.3(a)(2)(iv)] provides criteria useful for determining treatment (or alternatively, pretreatment) criteria for such water. Under the Exclusion, wastewater mixed with a RCRA F-listed spent solvent waste, whose constituent-specific concentration is less then its *de minimis* level (see below) before *or* at introduction to the headworks of a Clean Water Act-regulated system, is not a hazardous waste. Sludges generated from a wastewater that meets the Mixture Rule Exclusion criteria are also exempted from the hazardous waste listing because the mixture became exempt upon introduction to the wastewater system.

Constituent	*De minimis* level, μg/L	Amenable to Removal by Activated Carbon
Tetrachloroethene	1,000	✔

Because the highest detected concentration (39 μg/L) of tetrachloroethene in perched water in the Sludge Drying Beds/STP excavation area is well below the *de minimis* level even before introduction to the wastewater treatment system, the perched water in this area meets the Hazardous Waste Mixture Rule Exclusion criteria. It will be discharged to the FEMP's Clean Water Act-permitted water treatment scheme via the OSDF Leachate Collection System Sump for conveyance to the AWWT Phase II (activated carbon adsorption) facility. Resultant sludges generated from this treatment scheme are also exempted from the hazardous waste listing. In this manner, the small quantities of tetrachloroethene that might be present in the exempted wastewater mixture will be present in such low concentrations that they do not pose a substantial hazard to human health or the environment either by intended or unintended (e.g., subsurface leakage) release, and will be treated in the FEMP's wastewater treatment system in a practical, reasonable and efficient manner."

74) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 3.0 Pg. #: 3-43 Line #: 43 Code: C
Comment: The analyses for tetrachloroethene should include its biodegradation daughter products (e.g., cis 1,2-dichloroethene, trans 1,2-dichloroethene, 1,1-dichloroethene, and vinyl chloride). Pre-treatment actions should be initiated if any of these compounds also are detected above their respective CRDLs.

Response: See the responses to Ohio EPA's Comment No. 73.

Action: See the action for the referenced comment.

75) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 3.0 Pg. #: Fig. 3-5 Line #: Code: E
Comment: Note 6 has redundant text ("and stage").

Response: Noted. Figure 3-5 has been deleted from the Implementation Plan.

Action: No action.

76) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 3.0 Pg. #: Fig. 3-7 Line #: Code: E
Comment: Note 5 is incomplete (no figure referenced).

Response: Noted. Figure 3-7 has been deleted from the Implementation Plan.

Action: No action.

77) Commenting Organization: OEPA Commentor: OFFO
Section #: 4.1.2 Pg. #: 4-2 Line #: Code: C

Comment: Natural resource impact monitoring should measure against the values and time frames defined in the Habitat Equivalency Analysis within the Natural Resource Restoration Plan. Ohio EPA comments on the most recent IEMP quarterly report provide additional concerns on natural resource monitoring.

Response: Based on an April 16, 1998, Natural Resources Trustee meeting, the need for natural resource impact monitoring has been eliminated. Therefore, Natural Resource Impact Monitoring Plan (NRIMP) will be deleted from the Integrated Environmental Monitoring Plan (IEMP); and references to the NRIMP will be deleted from the A1PII Implementation Plan.

Action: Section 4.1 and 4.1.1 do not refer to the natural resource impact monitoring and the NRIMP.

78) Commenting Organization: OEPA Commentor: OFFO
Section #: 4.2.3.2 Pg. #: 4-7 Line #: Code: C

Comment: Considering the close proximity of the STP to the property line, it is unlikely the IEMP monitoring network would comprehensively monitor STP remediation activities. The section should include a map of the project area and existing monitoring locations with a discussion of the adequacy of the monitors to measure emissions from the STP remediation.

Response: As discussed in Section 5.0 of the Sitewide Excavation Plan (SEP, 2500-WP-0028), all airborne radiological particulate emissions associated with on-site excavation activities to be initiated under the SEP are anticipated to be from fugitive emissions (dust). Control of, and visual monitoring for, fugitive emissions are therefore the focus of the A1PII air pathway concerns. A1PII project-specific fugitive emissions control and related monitoring are presented in the A1PII Implementation Plan's Section 4.2.2.

As indicated in previous discussions and correspondence on the FEMP's 40 CFR Part 61 NESHAP Subpart H air monitoring compliance program (see the response to U.S. EPA Specific Comment No. 51 on the August 1996 Draft IEMP), presented in Section 6.0 of the Integrated Environmental Monitoring Plan (IEMP, 2505-WP-0002), the IEMP airborne radiological particulate monitoring program locations are based on the primary wind rose sectors and potential receptor locations. As discussed in Section 6.0 of the IEMP, Section 5.0 of the SEP, and Section 4.2.3.2 of the A1PII Implementation Plan, that program is designed to collect data representative of ambient air quality at select locations at or near potential receptors, and encompasses all the current and expected point and diffuse sources at the FEMP, including all the A1PII diffuse sources inclusive of the diffuse sources expected from the STP excavation. The air monitoring network as approved is designed to be representative of potential receptors in each sector. The IEMP's existing network of airborne radiological particulate monitor stations placed at the FEMP fenceline provide an adequate level of assurance that the cumulative dose from FEMP remediation activities remains within the NESHAPs standards.

Action: The existing text in Section 4.2.3.2 which discusses the adequacy of the existing IEMP network was modified to reference Figure 2-7 which presents the existing airborne radiological-particulate monitoring stations in the A1PII vicinity.

79) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: 6.0 Pg. #: 6-12 Line #: 18 Code: C
Comment: The Health and Safety representative's organization (subcontractor, FDF, etc.) should be indicated in the text.

Response: Comment is assumed to apply to Section 6.4, which is at the indicated page and line. Section 6.4 as written emphasizes FDF's management of the contractor. Consistent with industry practice and its obligations under OSHA, the FDF A1PII Project Team will have a safety and health representative, who will have authority through the FDF Construction Manager. Similarly, the contractor will have one or more safety and health representatives, who will have authority through the contractor's Construction Manager. It is noted that the reviewer had no comment on this matter on either the corresponding section of the SEP (from which this language is extracted) or the corresponding section of the A2PI Implementation Plan constructed in the identical manner.

Action: No action.

COMMENTS ON APPENDICES

APPENDIX A
DESIGN CRITERIA PACKAGE FOR REMEDIAL DESIGN SERVICES
REMEDIATION AREA 1, PHASE II
(20710-DC-0001, Rev. E, Nov. 1997)

80) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. A Pg. #: 1-3 Line #: 9 Code: C
Comment: The word "potentially" should be deleted from the text as TCLP testing has revealed above characteristic levels of lead and arsenic.

Response: As presented in the Implementation Plan's Appendix B-4, "Letter Report for Lead Delineation in the Area 1 Phase II Trap Range" (20710-RP-0002, Rev. A, Draft), in some locations of the Trap Range area lead concentrations do exceed its corresponding 20X rule value of 100 mg/kg via total analysis, and the Toxicity Characteristic threshold of 5 mg/L via TCLP analysis. In other locations in the Trap Range area, lead concentrations do not exceed the 20X rule value. In all locations in the Trap Range area, arsenic concentrations do not exceed its corresponding 20X rule value of 100 mg/kg.

Action: For clarity, the subject text was revised to read:

"The Trap Range area contains soil with concentrations of arsenic and lead above the final remediation level (FRL); in some locations the lead concentration exceeds the

Resource Conservation and Recovery Act (RCRA) toxicity characteristic threshold of 5 mg/L or its corresponding 20X rule value of 100 mg/kg. The Sludge Drying Beds in the STP..."

81) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. A Pg. #: 1-3 Line #: 33 Code: C
Comment: While one "design package" includes the upcoming Area 1 Phase II work, several different contractors will have various responsibilities. The text should be revised to clarify this point.

Response: The Implementation Plan was revised to reflect the present implementation strategy for A1PII. This strategy, along with design modifications to the 90% EPA Design review, was presented at the April 7 and 8, 1998, joint EPA-FEMP Soil Progress meeting. Additionally, the use of the A1PI Sedimentation Trap locations for development as wetland areas and the A1PII Borrow Area development for sewage treatment plant excavation backfilling were also discussed at that meeting. The revised implementation strategy has also been communicated to the U.S. EPA and the Ohio EPA in letter DOE-0679-98, Reising to Saric and Schneider, "Planned Implementation Strategy for the Area 1, Phase II Soil Characterization, Excavation and Certification Activities."

However, it must be recognized that this strategy could change based on funding availability and schedule. Additionally, the FEMP is continuing to explore the feasibility of incorporating any one of these packages into an existing contract while remaining compliant with site procurement guidelines. By utilizing the services of a previously mobilized contractor, the costs associated with procurement, mobilizing/demobilizing, and training of a new contractor would be avoided.

Action: The Implementation Plan was revised to reflect the present contracting strategy.

82) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. A Pg. #: Tab. A-2 Line #: Code: E
Comment: This table should include a key defining the meaning of the abbreviations (e.g., appl, R&A, etc.) and symbols (e.g., check marks) used.

Response: The title sheet of Appendix A includes text which refers the reader to the Implementation Plan and the Sitewide Excavation Plan for discussion of the ARARs/TBCs presented therein in Table A-2. The meanings of the abbreviations and checkmarks are explained in the Sitewide Excavation Plan's Appendix A, from which the subject Table A-2 was extracted. It is noted that the reviewer had no comment on this matter on the A2PI Design Criteria Package's Appendix A presentation of the ARARs/TBCs, which was constructed in the identical manner.

Action: No action.

APPENDIX B
PREDESIGN INVESTIGATION SUPPORTING INFORMATION

APPENDIX B-1
TABLES

83) Commenting Organization: OEPA Commentor: OFFO
Section #: App. B, Table B-1 Pg. #: Line #: Code: C
Comment:
a) A number of the values reported in this table are μg/L. Are these values for TCLP tests or for liquids from the sludge drying beds?
b) The Waste Mgmt. Project Number suggests these samples were taken for NTS criteria. What is the objective of such sampling, if the waste is know to be a listed RCRA waste and thus unlikely to be disposed at NTS?
c) A number of the organic contaminants are reported at a value of 25 μg/L. It is unlikely such a consistent concentration was detected. Clarify if these are detections or simply reporting the detection limit.

Response:
a) Yes, the values are for TCLP tests. A note will be added for clarification.

b) The Project Number is simply a Waste Management tracking number for characterization. This work was performed using the same cost account as NTS characterization work. The Project Number in no way indicates the final disposition of the material.

c) The 25 μg/L values are the detection limit; the qualifier codes will be added to show these results as non-detects.

Action: The tables were revised in accordance with the above response.

84) Commenting Organization: OEPA Commentor: OFFO
Section #: App. B, Table B-2 Pg. #: Line #: Code: C
Comment:
a) No figure within the Appendix provides a comprehensive view of the sample locations reported in the table.
b) A number of data points within the table would seem to contradict DOE's assertion that all contaminants exceeding FRLs lie within the uranium footprint. A number of instances are included in which Ra-226 or Th-232 exceed their respective FRLs while uranium exists at concentrations below 50 ppm. Obviously it is not possible to compare these data to the excavation boundaries as no figure is provided to show both data and excavation boundaries. The data does support Ohio EPA's concern that the predesign investigations inappropriately focused primarily on total uranium rather than equally focusing on uranium, radium and thorium contaminants.

Response:
a) The intent of this table was to present, for information purposes, all the data associated with Removal Action 14. A report on Removal Action 14 has already been issued and approved by the agencies.

b) As discussed in the response to OEPA Comment No. 5, the data will be reported on the FEMP website. With respect to using uranium as the driver for excavation, see the response to OEPA Comment No. 22.

Action: See action for OEPA Comments No. 5 and 22.

86) Commenting Organization: OEPA Commentor: OFFO
Section #: (App. B-4) Figure 5-1 Pg. #: Line #: Code: c
Comment: It is difficult to resolve the figure with the text. It is hard to see how the data justifies the 400 ppm lead contour. At several data points to the west of the excavated area, it looks like the contours have been extended outward until a data point less than 400 ppm is reached. At other locations(to the north and northeast for example) it looks like kriging was used. Please clarify how the excavation extent was determined. Justify also the "peninsula" to the east of the trap range and the isolated "island" to the east. The easiest method to present the excavation limits may be to post all of the surficial results to a map that also shows the proposed excavation extent. There are very much more data in Appendix A than are shown in Figure 5-1.

Response: Kriging was used to develop the entire extent of excavation. The "peninsula" to east of the trap range is an artifact of the data used and the kriging process. The letter report provided in Appendix B-4 has been deleted from the Implementation Plan.

Action: No action.

APPENDIX B-3
LETTER REPORT FOR PREDESIGN INVESTIGATION FOR TOTAL URANIUM IN THE SEWAGE TREATMENT PLANT (STP) AREA (20710-RP-0004, Rev. A, Nov. 1997)

87) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-3 Pg. #: Tab. A Line #: Code: E
Comment: The total uranium concentration for Sample A1PIISTP-12290-32-R is missing from this table.

Response: Noted.

Action: The letter report provided in Appendix B-3 has been deleted from the Implementation Plan. Sample data are included in the revised Appendix B.

APPENDIX B-4
LETTER REPORT FOR PREDESIGN INVESTIGATION FOR LEAD DELINEATION IN THE AREA 1 PHASE II TRAP RANGE (20710-RP-0002, Rev. A, Nov. 1997)

88) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-4 Pg. #: ES-1 Line #: 12 Code: C
Comment: This text indicates that excavation and removal of lead contaminated soil is the preferred remedy for the Trap Range. This statement is inconsistent with the text in Section 3.1.4.1 which states that in situ stabilization is the selected remedial approach.

Response: The letter report originally provided in Appendix B-4 has been deleted from the Implementation Plan.

Action: Section 3.3 presents and discusses the current approach, stabilization, excavation, and disposal of the lead-contaminated soil in the OSDF.

89) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-4 Pg. #: 1-2 Line #: 10 Code: E
Comment: Revise "...soil concentrations exceeded 100 mg/k" to "...soil concentrations exceeded 100 mg/kg."

Response: Noted.

Action: The letter report originally provided in Appendix B-4 has been deleted from the Implementation Plan. Section 3.3 presents and discusses the current approach, stabilization, excavation, and disposal of the lead-contaminated soil in the OSDF.

90) Commenting Organization: OEPA Commentor: OFFO/HSI-GeoTrans
Section #: App. B-4 Pg. #: Tab. 5-1 Line #: 8 Code: C
Comment: Four near surface (zero to six inch) samples exceeded the TCLP limit. One six to 12 inch sample exceeded the TCLP limit but not the FRL. These results should be discussed in the text. Include within the text a table presenting all TCLP samples and their associated total lead values.

Response: Noted.

Action: The letter report originally provided in Appendix B-4 has been deleted from the Implementation Plan. Section 3.3 presents and discusses the current approach, stabilization, excavation, and disposal of the lead-contaminated soil in the OSDF. Data tables are presented in the revised Appendix B.

91) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-4 Pg. #: Tab. 5-1 Line #: Code: E
Comment: The last two sample numbers are incorrect and should be revised to A1PIITRAP-28-2 and A1PIITRAP-33, respectively.

Response: Noted.

Action: The letter report originally provided in Appendix B-4 has ben deleted from the Implementation Plan. Section 3.3 presents and discusses the current approach, stabilization, excavation, and disposal of the lead-contaminated soil in the OSDF. Data tables are shown in Appendix B.

92) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-4 Pg. #: Fig. 5-1 Line #: Code: C
Comment: A separate figure showing the sampling and analysis results for the six to 12 inch sampling interval should be provided.

Response: Noted.

Action: Figure 2-40 shows sampling locations for the Trap Range.

93) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-4 Pg. #: Fig. 5-1 Line #: Code: C
Comment: The lower interval shown in the legend should be revised to read "6 - 12"." This figure appears to show a mix of recent and RI/FS data. The use of RI/FS data at selected locations where recent data are available should be explained. Additionally, to facilitate comparison of this figure with the tabulated sample results, it should be scaled and oriented identical to Figure 2-1 showing the sample locations.

Response: Noted.

Action: Figure 2-40 shows sampling locations for the Trap Range.

94) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-4 Pg. #: App. A Line #: Code: C
Comment: To facilitate comparison between the data shown in this table and on Figure 5-1, concentration results should be reported to the same number of significant figures. Many of the tabulated values appear to have been rounded and are inconsistent with those shown on the figure.

Response: The letter report originally provided in Appendix B-4 has been deleted from the Implementation Plan.

Action: Figure 2-40 shows sampling locations for the Trap Range.

APPENDIX B-5
LETTER REPORT FOR PRE-DESIGN INVESTIGATION OF TECHNETIUM-99 IN SOIL IN THE SEWAGE TREATMENT AREA (20710-RP-0003, Rev. A, Nov. 1997)

95) Commenting Organization: OEPA Commentor: OFFO
Section #: App. B-5 Pg. #: Line #: Code: general
Comment: The arguments presented which cast doubts on the previous Tc-99 hits are persuasive. We await the lab results.

Response: The letter report originally provided in Appendix B-5 has been deleted from the Implementation Plan.

Action: The data tables are presented in the revised Appendix B; a discussion of Tc-99 sampling results is included in Section 2.3.2.2.

96) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-5 Pg. #: ES-1 Line #: 32 Code: E
Comment: Revise "...radionuclides including including" to "radionuclides including."

Response: The letter report originally provided in Appendix B-5 has been deleted from the Implementation Plan.

Action: No action.

97) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-5 Pg. #: 1-2 Line #: 4 Code: C
Comment: The depths and contamination levels at the three locations mentioned in the text are not shown on Figure 1-1.

Response: The letter report originally provided in Appendix B-5 has been deleted from the Implementation Plan.

Action: Figure 2-23 shows the Tc-99 sample locations and results.

98) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-5 Pg. #: 1-2 Line #: 10 Code: C
Comment: The text is incorrect to state that the purpose of the PSP was to confirm the results of previous investigations. The stated purpose as outlined on the previous page was to demonstrate that the previous investigation results were inaccurate.

Response: Noted.

Action: The letter report originally provided in Appendix B-5 has been deleted from the Implementation Plan. A discussion of the sampling results is included in Section 2.3.2.2.

99) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-5 Pg. #: 2-2 Line #: 28 Code: C

Comment: The text suggests that bedrock was encountered at the depth of the deepest sampling interval (three feet) which requires some explanation. According to Section 2.3.2, the top of bedrock occurs at a depth of approximately 200 feet.

Response: An underground extension off of Manhole 175 caused an obstruction at Boring location 6, and was misinterpreted.

Action: The letter report originally provided in Appendix B-5 has been deleted from the Implementation Plan. A description of Sector 3 components is included in Section 2.1.1.3.

100) Commenting Organization: OEPA Commentor: OFFO
Section #: App. B-5 Pg. #: 5-1 Line #: Code: C
Comment: Throughout the Implementation Plan DOE concluded that preliminary data showed no Tc-99 hits, never did it suggest this was because there was no data. Prior to resubmittal of the document DOE must include all data and discuss its impact on the previously proposed and obviously limited design.

Response: Noted.

Action: The letter report originally provided in Appendix B-5 has been deleted from the Implementation Plan. The data sets are presented in the revised Appendix B.

APPENDIX B-6
LETTER REPORT FOR AREA 1, PHASE II
PERCHED WATER SAMPLING AT THE SEWAGE TREATMENT PLANT AREA
(55200-RP-0001, Rev. A, Nov. 1997)

101) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-6 Pg. #: ES-1 Line #: 24 Code: C
Comment: The statement that residual VOC contamination has since been biodegraded references no sampling of degradation compounds, field studies, or analyses to provide support.

Response: Appendix B-6 has been deleted from the Implementation Plan.

Action: A revised discussion of the biodegradation of VOC contamination is included in Section 2.1.3.5.

102) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-6 Pg. #: 1-1 Line #: 17 Code: C
Comment: The locations of the six monitoring wells should be shown on a figure with the relevant VOC data posted. Specific dates of the sampling should be noted. Construction information for the wells should be summarized in a table.

1726

Response: Noted.

Action: The letter report originally provided in Appendix B-6 has been deleted from the Implementation Plan. Perched water sample locations are shown on Figure 2-25.

103) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-6 Pg. #: 1-2 Line #: 6 Code: C
Comment: Figure 1-1 could not be located.

Response: Noted.

Action: The letter report originally provided in Appendix B-6 has been deleted from the Implementation Plan. Perched water sample locations are shown on Figure 2-25.

104) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-6 Pg. #: 1-2 Line #: 18 Code: E
Comment: The sentence beginning on the indicated line is redundant with the immediately preceding sentence.

Response: The letter report originally provided in Appendix B-6 has been deleted from the Implementation Plan.

Action: No action.

105) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-6 Pg. #: 2-1 Line #: 20 Code: E
Comment: Change "Swage" to "Sewage."

Response: The letter report originally provided in Appendix B-6 has been deleted from the Implementation Plan.

Action: No action.

106) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-6 Pg. #: 7-2 Line #: 4 Code: C
Comment: The conclusion that the perched groundwater may no longer be contaminated with VOCs is not readily substantiated by the results of this investigation because it is based on just two borings and perched water samples. In addition, no results from previous investigations are quantitatively presented for review.

Response: Management of perched water and other remediation-generated water from the Sludge Drying Beds/STP excavation area was the topic of a meeting between DOE and Ohio EPA on March 20, 1998; see the response and action for Comment No. 73. As the perched water from the Sludge Drying Beds/STP excavation area will be treated at AWWT Phase II, the critical issue is whether the tetrachloroethene concentration is less than the Mixture Rule Exclusion *de minimis* level for tetrachloroethene.

35

1726

Action: The letter report originally provided in Appendix B-6 has been deleted from the Implementation Plan. A discussion of remediation-generated waste water management has been included in Section 3.4.4.

APPENDIX B-7
LETTER REPORT FOR AREA 1 PHASE 2
FIELD SAMPLING OF MISCELLANEOUS AREAS
(20710-RP-0007, Rev. A, Nov. 1997)

107) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-7 Pg. #: General Line #: Code: E
Comment: The report given in Appendix B-7 does not have a results section. In addition, there are numerous instances of improper word usage and tense throughout.

Response: Appendix B-7 has been deleted from the Implementation Plan.

Action: A discussion of field sampling in miscellaneous areas has been included in Section 2.3.2.4.

108) Commenting Organization: OEPA Commentor: OFFO
Section #: 1.4 Pg. #: 1-4 Line #: 26 Code: c
Comment: Technetium-99 is also a potential WAC concern.

Response: Sources and extent of technetium-99 are under investigation as part of the Pre-Design Investigation PSP for Technetium-99 in the STP Area.

Action: Appendix B-7 has been deleted from the Implementation Plan. A discussion of the predesign investigation for technetium-99 is included in Section 2.3.2.2.

109) Commenting Organization: OEPA Commentor: OFFO
Section #: 1.4 Pg. #: 1-5 Line #: 1 Code: c
Comment: The Operable Unit 3 ROD does allow asphalt from the process area to be disposed in the OSDF but the Waste Acceptance Criteria for debris included a visual inspection for the presence of process residues. All asphalt from the FEMP should not be presumed to categorically meet WAC and be acceptable for the OSDF.

Response: Appendix B-7 has been deleted from the Implementation Plan. Asphalt was addressed in the OU3 Record of Decision as a debris waste stream that can be dispositioned in the OSDF. In accordance with Section 5.2.2. of the OSDF WAC Attainment Plan, asphalt pavement (a Category E debris) meets the technetium-99 mass-based OSDF WAC for debris, and therefore does not require further pre-design sampling or visual inspection for process residues.

Action: No action.

101b) Commenting Organization: OEPA Commentor: OFFO
Section #: 1.4 Pg. #: 1-5 Line #: 10 Code: c
Comment: If the pipeline is not sampled in the STP area, how will WAC compliance be verified?

Response: WAC determinations made during the pre-design phase include an assessment (and modeling) of all previous RI and other data, along with newly obtained Pre-Design Investigation data. In the STP area, this was done using RI data, Removal Action 14 data, and the predesign data from all the sampling activities listed in Section 2.0 of the Implementation Plan. Any extensive contamination from underground pipes (to an extent enough to cause above-WAC concentrations of contaminants) would have been identified given the relatively high density of sampling points within the relatively small STP area. Regardless, as discussed in Section 3.3.4.1 of the July 1997 SEP, real-time excavation-control monitoring of gamma radioactivity and organic vapor levels will be conducted during excavation of above-FRL/below-WAC areas as defined during the pre-design. This monitoring will identify any above-WAC contamination present.

Action: No action.

102b) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-7 Pg. #: 2-2 Line #: 9 Code: E
Comment: Revise "...conditions required amoving borehole" to "...conditions required moving a borehole."

Response: Appendix B-7 has been deleted from the Implementation Plan.

Action: No action.

103b) Commenting Organization: OEPA Commentor: OFFO
Section #: 2.2.4 Pg. #: 2-4 Line #: 20 Code: c
Comment: Is there a typo in bullet 3? Should that be, "The 10% of the data reported with the Certificate and the QA/QC results will be validated to ASL D" not ASL B as in the text?

Response: The data were validated to ASL B. Validation for ASL B includes the review of all data and associated QC, but not the recalculation of the data from raw data. Recalculating all the data by hand is performed in validation for ASL D. Appendix B-7 has been deleted from the Implementation Plan.

Action: No action.

104b) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-7 Pg. #: 2-2 to 2-6 Line #: Code: E
Comment: The sections on these pages are intended to describe an investigation that has been conducted but are written in future verb tense. They, therefore, are considered not reviewable.

Response: Appendix B-7 has been deleted from the Implementation Plan.

Action: Field sampling of miscellaneous areas is discussed in Section 2.3.2.4.

APPENDIX B-8
LETTER REPORT FOR AREA 1 PHASE II PRE-DESIGN INVESTIGATION SURVEY (20710-RP-0006, Rev. A, Nov. 1997)

105b) Commenting Organization: OEPA Commentor: OFFO
Section #: Figure 4 Pg. #: text on page 2-1 Line #: bottom of page Code: c
Comment: The high-lighted areas on Figure 4 do not support the text on page 2-1 which states "Based on this data radium-226 is not believed to be a contaminant of concern in the area that would require remediation." Figure 4 shows several high-lighted areas with radium-226 concentrations greater than 1.57 pCi/g. (The use of 1.57 pCi/g is not explained in the text but presumably this value represents the trigger level.)

Response: Appendix B-8 has been deleted from the Implementation Plan.

Action: A revised discussion of surface excavation in the STP surrounding areas is included in Section 2.3.3.2.

APPENDIX B-9
LEACHABILITY STUDIES AND KRIGING METHODS USED TO DEVELOP ESTIMATED LIMITS OF EXCAVATION

106b) Commenting Organization: OEPA Commentor: OFFO
Section #: Leaching/kriging Pg. #: Line #: Code: general
Comment: The Appendix does not add much useful information to that presented in the body of the text. Figure 2-1 shows that only five points are available with which to decide the limits of the low Kd excavation. It is unclear why the eastward extent of the low Kd area does not extend further eastward all the way to the locations of the higher Kd results. Similiarly, we do not understand how only 5 data points allow the western boundary of the low Kd area to be located. With no data further to the west, any westward limit to this area appears arbitrary.

Response: Noted. Appendix B-9 has been deleted from the Implementation Plan.

The low K_d area delineation in Figure 2-1 is a generalization, and was not intended to imply specific modeling limits for given uranium FRL values. Also, the STP area excavation limits is based on the lower K_d-based FRL of 20 ppm for total uranium, except where excavation of underground utilities necessitated deeper excavation. For these reasons, the delineation will be deleted.

Action: The reference to the lower K_d boundary has been deleted from Figure 2-19.

107b) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-9 Pg. #: General Line #: Code: C
Comment: The types of semivariogram models (e.g., spherical, gaussian, etc.) used for each of the modeled data sets (stratigraphy data, total uranium data, and trap range lead data) should be indicated. In each case, the text should provide a graphic representation of

the plotted data versus the chosen model. In addition to the graphic presentation, the validity of the model should be assessed in the report quantitatively. The report should also include a summary of the raw data used in each kriging instance. The summary should include a discussion of distributional assumptions, nondetect treatment, and possible outlier identification.

Response: Appendix B-9 has been deleted from the Implementation Plan.

Action: A discussion has been included in Section 2.3.1.3.

108b) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-9 Pg. #: 3 Line #: 27 Code: E
Comment: Revise "...variability in several directions, ." to "...variability in several directions."

Response: Appendix B-9 has been deleted from the Implementation Plan.

Action: No action.

109b) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. B-9 Pg. #: 8 Line #: 16 Code: E
Comment: Revise "...400 p.m." to "...400 ppm."

Response: Appendix B-9 has been deleted from the Implementation Plan.

Action: No action.

APPENDIX C
SURFACE WATER MANAGEMENT PLAN FOR REMEDIATION AREA 1, PHASE II
(20710-RP-0001, Rev. E, Nov. 1997)

110) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. C Pg. #: General Line #: Code: C
Comment: The complete Table of Contents should be at the beginning of the section. Appendix B (Drainage Area Map) should be appropriately listed and referenced in the text.

Response: Noted.

Action: Correction has been made in this revision of the IRDP.

111) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. C Pg. #: 2-2 Line #: 18 Code: C
Comment: The dike material is indicated as clay or clay like material and only compaction testing is required as a specification. In place permeability specifications should also be developed and required.

Response: The need for above-ground storage tanks and associated diking has been eliminated in accordance with a revised approach to management of perched water and associated

remediation-generated wastewater as presented in the response and action to Comment No. 73.

Action: Appendix C's Section 2.3.3, Above-Ground Storage Tanks, has been deleted from this revision of the IRDP.

112) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. C Pg. #: 4-4 Line #: 2 Code: C

Comment: If an overflow situation does occur, the South Access Road will be flooded. A spillway built into the road should, therefore, be considered.

Response: Design criteria for the A1PII sediment basin is based on ODNR "Rainwater and Land Development" for 67 cubic yards per acre of drainage area. This yields an elevation of 572.15' which is well below the low point in the adjacent North Access Road of 578.34'. Routing the 10-year, 24-hour storm through the principle spillway results in a maximum water surface elevation of 576.8', which also is well below the low point of the adjacent North Access Road. If the A1PII sediment basin were to overflow, flow would occur to the north, over the North Access Road, before crossing the South Access Road. The North Access Road would act as a broad flat crested weir. That roadway has a bituminous surface and the shoulders are well stabilized. Overflow would not occur at the principle spillway, which is assumed to be the weakest point in the embankment. Therefore, a dedicated emergency spillway is not considered necessary for A1PII.

Action: No action.

113) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. C Pg. #: A-1 Line #: 31 Code: E
Comment: Change "...with a basin sediment basin" to "...with a sediment basin."

Response: Noted.

Action: Correction was made in this revision of the IRDP.

114) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. C Pg. #: A-2 Line #: 20 Code: C, E
Comment: Change "...may factors" to "...many factors." The many factors should be briefly summarized.

Response: The referenced text has been deleted from the SWMP for the next revision of the IRDP.

Action: No action.

APPENDIX D
SYSTEMS PLAN FOR REMEDIATION AREA 1, PHASE II
-(20710-PL-0003, Rev. C, Nov. 1997)

115) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. D Pg. #: 6 Line #: 8 Code: C

Comment: The note given in the referenced text should be revised to indicate that the pump leads should be disconnected prior to conducting tests 1 through 3 rather than tests 1 through 4. Test 4 cannot be conducted with the leads disconnected.

Response: Noted.

Action: Correction was made in this revision of the IRDP.

APPENDIX E
AREA 1, PHASE II STRUCTURES AND FACILITIES

116) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. E Pg. #: E-2 Line #: Code: C
Comment: For the AWWT Effluent Line, a remark should be added regarding its use as an influent line from the temporary tanks to the AWWT.

Response: As presented in the response and action to Comment No. 73, the approach to management of perched water and associated remediation-generated wastewater has been revised. Appendix E has been deleted from the IP.

Action: No action.

117) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. E Pg. #: E-13 Line #: Code: C
Comment: Older trickling filters (such as may be present at the STP) may have a significant volume of mercury in the rotary arm seal. Has this possibility been addressed?

Response: FEMP Maintenance has researched the trickling filter's rotary arm seals for mercury. Maintenance records indicate that this style of seal was replaced in the 1980s by a non-mercury seal. The rotary arm has been removed by FC&DP.

Action: No action.

118) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: App. E Pg. #: Tab. E-2 Line #: Code: C
Comment: Wells 2051, 31217, and 41217 are included in Table 4.1 but are missing from this table. Table E-2 should be revised to include the missing wells.

Response: Monitoring wells 2051, 31217, and 41217 are actually in the southeast corner of A1PI, outside the boundary of A1PII. Appendix E has been removed from the IP.

41

Action: Referenced monitoring wells were removed from Table 4-1 rather than added to Table E-2; text of Section 4.4.2 was revised accordingly.

APPENDIX F
INTEGRATED MEASUREMENTS APPROACH FOR REMEDIATION AREA 1, PHASE II

119) Commenting Organization: OEPA Commentor: OFFO
Section #: Pg. #: Line #: Code: general
Comment: The uses of the in-situ gamma spectroscopy methods have not been approved by the regulators. Hopefully, some progress will be made after the review of the deliverables refered to in the "path forward" letter (DOE-0225-98). Until these deliverables are reviewed and approved, the final uses of the in-situ gamma methods are uncertain.

Response: Noted.

Action: In accordance with a suggestion from Ohio EPA on the similar Appendix E to the A2PI IRDP, this Appendix F was deleted and appropriate text from the appendix was incorporated into the body of the Implementation Plan.

120) Commenting Organization: OEPA Commentor: OFFO
Section #: F-1 Pg. #: F-1 Line #: 11 Code: c
Comment: The hot-spot issues has not been finally resolved. The most recent discussions between DOE and the regulators leaned more strongly toward an area-weighted approach (the 100/A**2 criteria used in DOE orders cited as an ARAR in the OU5 ROD). Ohio EPA has never indicated that the 3XFRL criteria stated in the text would be acceptable.

Response: Noted.

Action: The IRDP was revised in the appropriate locations to reflect the path forward on hot-spot criteria negotiated between DOE, U.S. EPA, and Ohio EPA, as presented in the response to U.S. EPA General Comment 2 on the Sitewide Excavation Plan (Rev. C, July 1997).

121) Commenting Organization: OEPA Commentor: OFFO
Section #: F.1.3.1 Pg. #: F-5 Line #: 14 Code: c
Comment: The justification for comparing the 95%UCL to the FRL as a means of establishing that the method meets the reqirments of ASL D is unclear. Please justify the use of this criteria.

Response: Noted.

Action: No action. Note the action for OEPA Comment No. 119.

122) Commenting Organization: OEPA Commentor: OFFO
Section #: F.3.1.1 Pg. #: F-13 Line #: 21 Code: c
Comment: ASL B is a screening level method. Provide justification for using data at this quality level to verify the removal of above-WAC material.

42

Response: The ASL B refers to the detection limit criteria, which is well below the WAC screening levels.

Action: No action. Note the action for OEPA Comment No. 119.

123) Commenting Organization: OEPA Commentor: OFFO
Section #: F.3.2.1 Pg. #: F-15 Line #: 6 and 9 Code: c
Comment: ASL B data is used here to both to verify TCLP attainment and to verify FRL attainment. Please provide justification.

Response: ASL B is being used a part of the certification readiness testing. Certification analyses will all be performed at ASL D.

Action: No action. Note the action for OEPA Comment No. 119.

TECHNICAL SPECIFICATIONS FOR REMEDIATION AREA 1, PHASE II SITE PREPARATION AND REMEDIATION PACKAGE (20710-TS-0002, Rev. C, Nov. 1997)

124) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: Tech Specs. 01010 Pg. #: 1 Line #: Code: C
Comment: Item 1.1.A.9 is misleading as it suggests that the AWWTF discharge line is the only utility to remain. The statement should be revised to indicate what other utilities will remain in place.

Response: Division 1 of the Technical Specifications has been removed. Elements of Division 1 as corrected will be addressed in Part 6 of the Contract Document.

Action: This comment will be considered in the preparation of Part 6.

125) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: Tech Specs. 02050 Pg. #: 7 Line #: Code: E
Comment: In Item 3.2.A.3, revise "...provide the located and..." to "provide the location and..."

Response: Noted.

Action: Specification 02050 was revised accordingly.

126) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: Tech. Specs. 02050 Pg. #: 7 Line #: Code: C
Comment: The plus or minus two inch tolerance for excavation depths of six inches as given in Item 3.1.U should be lowered. The allowable error represents too great a proportion of the excavated depth.

Response: Comment is assumed to apply to Item 3.1.U of the former Specification 02205, since there was no Item 3.1.U in Specification 02050.

Action: Specification 02205 was revised to present excavation tolerances of -0 to +6 inches.

127) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02100 Pg. #: 3 of 8 Line #: 1.5D Code: c
Comment: This Paragraph refers to a Dust Control Plan and implies that "Part 6" also contains information relevant to dust control measures. We can not find either of these references in the submittal package. Please provide Ohio EPA with two copies of each.

Response: See response to OEPA Comment No. 4 relevant to Part 6 and the Dust Control Plan. The Dust Control Plan referred to will submitted to DOE by the contractor for review and approval to ensure compliance with Part 6, and thus compliance with the site BAT policy.

Action: No action.

128) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02100 Pg. #: 6 Line #: 3.4A.3 Code: C
Comment: Ohio EPA assumes the referenced woodchip stockpile is the one located in the vicinity of the met tower. Please clarify. Additionally, Ohio EPA understood that FDF had assumed responsibility for turning the pile. Will the selected contractor be responsible for turning the entire pile or simple newly generated material at the pile?

Response: The referenced woodchip stockpile is the one located in the vicinity of the met tower. The selected contractor will off-load woodchips at this location. However, DOE will be responsible for managing (e.g., turning as necessary) the woodchip stockpile.

Action: The specification was revised to reflect the above response.

129) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02100 Pg. #: 6 Line #: 3.4C Code: C
Comment: This and subsequent specifications should be revised to include stockpile marking and fencing requirements being developed under the Sitewide Excavation Plan.

Response: Noted.

Action: Contractor requirements regarding stockpile marking and fencing, as defined in FEMP site procedures, will be added to the appropriate design package technical specifications.

130) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02205 Pg. #: 1 Line #: 1.1C Code: C
Comment: The text should be revised to be consistent with current plans regarding above WAC soil storage. Ohio EPA understands the OU1 pile will no longer be utilized since the storm water runoff from the pile is not controlled. It is necessary to store any additionally generated above WAC material in an area in which storm water is controlled and treated.

Response: Noted. The above-WAC stockpile and will be designated SP-7.

Action: Specification 02205 will be revised to indicate that above-WAC soil is to be taken to the SP7 stockpile.

131) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02205 Pg.#: 7 Line #: 1.8D Code: C
Comment: Additional clarification should be provided regarding the use of lead contaminated soils between 200 and 400 ppm as "borrow material for the OSDF". DOE must provide additional detail regarding the tracking mechanism to be used for these soils to ensure they are not to be used in an area of ecological impact.

Response: See response to OEPA Comment No. 27.

Action: The Trap Range Remediation design package will reflect the stabilization and excavation of lead-contaminated soil to the 200 mg/kg contour.

132) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02205 Pg. #: 7 Line #: 1.7F Code: C
Comment: The section must be revised to be consistent with the final WAC Plan. All inaccessible metals must be treated as process related metals unless proven otherwise. If visual inspection of the interior of the pipe is not possible then it should be assumed to be process related.

Response: The Operable Unit 3 Record of Decision (ROD) commits that visual inspection will be performed on debris encountered outside of Operable Unit 3 to verify that the OSDF prohibition of process-related metals and residues is met. Section 5.1.2.2 of the Waste Acceptance Criteria Attainment Plan for the On-Site Disposal Facility (Rev. 0, Final, June 1998) describes this commitment, and states that "Materials which are not process-related or process-suspect will not require this inspection, and include (but are not limited to) such materials as piping for utility systems (i.e., steam, condensate, drinking water, and other) and electrical systems (i.e., conduit motors, electrical panels, and others)." Accordingly, the materials associated with the underground utilities within A1PII do not require visual inspection to determine whether process related metals and residues are present. If other inaccessible metals are encountered in the field, they will undergo visual inspection to determine whether the material is classified as inaccessible metal (thus handled as debris) or process related metal (to be disposed off site). Pipes excavated during STP Excavation which conveyed sludge and have evidence of sludge within them shall be containerized for off-site disposal.

Definitions of Above Waste Acceptance Criteria (WAC) Materials in Item 1.7 incorporate any materials that do not meet the OSDF WAC into its definition, and is therefore consistent with the Waste Acceptance Criteria Attainment Plan for the On-Site Disposal Facility (Rev. 0, Final, June 1998).

Action: Specification Section 02205 was revised.

133) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02205 Pg. #: 7 Line #: Code: C
Original Comment #
Comment: In Section 1.8G.2. containers do not have to be "in-tact" to be "special materials" for this work.

Response: Noted.

Action: The text was revised to delete "in-tact" from Article 1.8.G.2 of Section 02205.

134) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02205 Pg. #: 11 Line #: 3.1L&O Code: C
Comment: The A2P1 IRDP specifications included a requirement for haul vehicles to be covered during operation. Ohio EPA believes this is an appropriate control measure which should be incorporated into these specifications.

Response: Noted.

Action: Specifications for equipment to haul impacted materials will be revised to require provision of automatic load covers consistent with the A2PI-Southern Waste Units Excavation package technical specification Section 02205, Item 3.1.P.3.

135) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02205 Pg.#: 12 Line #: N.2 Code: C
Comment: The WAC Plan addresses free liquid content limitations and should be referenced herein.

Response: The free liquid content limitation in the WAC Attainment Plan is identical to that in the Impacted Materials Placement Plan (IMPP) cited in Specification 02205 of the STP Excavation design package. The IMPP is cited as a reference in Specification 02205.

Action: Revise Specification 02205 Item 1.4.B to reference "Impacted Materials Placement Plan (IMPP), *current revision.*" [italics used to emphasize revision]. The text of Specification 02205 was revised to state specifications for free liquid content in material to be hauled and placed.

136) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02205 Pg. #: 13 Line #: U Code: C
Comment: Ohio EPA does not believe the excavation tolerances are sufficiently conservative for remediation and in particular of above WAC areas. It is unacceptable to conduct incomplete removal in above WAC areas. Additionally, a 30% less or more conservative removal during surface soil remediation does not seem appropriate. The tolerances should be revised to ensure complete removal of above WAC areas and to reduce the uncertainty of surface soil removal.

Response: Noted.

Action: See the action for Comment No. 126.

46

137) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02206 Pg. #: 11 Line #: J Code: C
Comment: The Compaction Requirement for the Sediment Basin and Tank Area should be increased to 95 percent Standard Proctor. These areas are being designed to contain contaminated liquids and thus should use conservative compaction requirement in order to obtain the best possible low permeability structure.

Response: The need for above-ground storage tanks and associated diking has been eliminated in accordance with a revised approach to management of perched water and associated remediation-generated wastewater as presented in the response and action to Comment No. 73.

Action: Compaction requirements contained in Specification 02206 Item 3.3.J's row for the Sediment Basin and Tank Area will be deleted.

138) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: Tech. Specs. 02210 Pg. #: 5 Line #: Code: C
Original Comment #
Comment: In addition to friable PACM, Item 3.1.D.3 should be revised to include PACM that is considered potentially friable.

Response: Requirements for handling asbestos containing waste material (ACWM) were incorporated into item 3.11 of Section 02205. ACM which has the potential to become friable will be treated the same as friable ACM.

Action: Handling requirements for asbestos containing material were incorporated in Section 02205.

139) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02211 Pg. #: 2 Line #: 1.5 Code: C
Comment: The specification should be revised to state that all submittals described therein will be submitted to the EPAs for review and approval prior to the initiation of any work.

Response: The RFP for Trap Range Remediation will require all proposers to submit a Treatability Study Work Plan and a description of the proposed approach for full scale remediation. Regulators will be provided copies of these documents for information. Regulators will be provided copies documentation detailing sampling prior to field work and certification after stabilization for review and approval.

Action: No action.

140) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02211 Pg. #: 4 Line #: 3.1 Code: C
Comment: The specification should be revised to ensure the treatability study proves that TCLP was passed as a result of treatment rather than dilution. This will require a mass balance calculation in addition to otherwise discussed data.

Response: Noted.

Action: The PSP for verification of stabilization of the lead-contaminated soils will address the sampling scheme and mass balance calculations.

140b) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: Tech. Specs. 02211 Pg. #: 6 Line #: Code: C
Comment: The remediation areas indicated in Item 3.2.A.1 are inconsistent with those given in Section 1.2.3.1 of the Implementation Plan. For example, the total remediation area indicated in Section 1.2.1.3 is "over 3.7 acres" compared to the 3.5 acres stated in this specification.

Response: The specification section is consistent with the WAC Attainment Plan. It is written at an adequate level of detail to present the contractor with an appropriate understanding of the information which is to be requested from him during execution of the contract.

The roles and responsibilities of WAO are detailed in the WAC Attainment Plan. Section 6.9 of the Implementation Plan addresses the relationship between A1PII and other projects/organizations at the FEMP, and therefore is the appropriate location to incorporate reference to WAO and its functions.

Action: Technical Specification Section 02212 is being deleted. Material documentation information is being provided via notes on the material tracking plan drawing at an adequate level of detail to present the contractor with an appropriate understanding of the information which is to be requested from him during execution of the contract.

Incorporate into Section 6.9 of the Implementation Plan the following summary of WAO's role in relation to the A1PII project:

"Waste Acceptance Organization (WAO) -WAO, an FDF organization independent of both the soil-and debris-generating projects and the receiving OSDF project, has programmatic responsibility for the OSDF WAC attainment compliance assurance program presented in the WAC Attainment Plan (20100-PL-0014). WAO representatives will provide oversight of field activities from impacted material origin to OSDF receipt."

141) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02212 Pg. #: Line #: Code: C
Comment: The specification should be revised to be consistent with the WAC Plan as well as incorporate reference to the WAO and its functions during the proposed work.

Response: The specification section is consistent with the WAC Attainment Plan. It is written at an adequate level of detail to present the contractor with an appropriate understanding of the information which is to be requested from him during execution of the contract.

The roles and responsibilities of WAO are detailed in the WAC Attainment Plan. Section 6.9 of the Implementation Plan addresses the relationship between A1PII and other projects/organizations at the FEMP, and therefore is the appropriate location to incorporate reference to WAO and its functions.

48

Action: Technical Specification Section 02212 is being deleted. Material documentation information is being provided via notes on the material tracking plan drawing at an adequate level of detail to present the contractor with an appropriate understanding of the information which is to be requested from him during execution of the contract.

Incorporate into Section 6.9 of the Implementation Plan the following summary of WAO's role in relation to the A1PII project:

"Waste Acceptance Organization (WAO) -WAO, an FDF organization independent of both the soil-and debris-generating projects and the receiving OSDF project, has programmatic responsibility for the OSDF WAC attainment compliance assurance program presented in the WAC Attainment Plan (20100-PL-0014). WAO representatives will provide oversight of field activities from impacted material origin to OSDF receipt."

142) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02212 Pg. #: Attachment I Line #: Code: C
Comment: This attachment does not appear to be consistent with the WAC Plan nor the form currently being used for waste placement in the OSDF. The form should be revised or additional justification provided.

Response: See the action to Comment No. 141. FDF will provide the contractor with the OSDF Manifest form, thus they will be provided with the most current version.

Action: No action.

143) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: Tech. Specs. 02270 Pg. #: 1 Line #: Code: C
Comment: Revise Item 1.1.E from "Installation of Continuous Berm" to "Installation of Run-on control Continuous Berm" for consistency with the drawings.

Response: The Run-On Control Continuous Berm has been removed from the A1PII design, and replaced with a run-on interceptor ditch.

Action: Items 1.1.E, 2.1.C, and 3.5 will be deleted from Specification 02270.

144) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02270 Pg. #: 9 Line #: 3.4B Code: C
Comment: The section requires stabilization of stockpiles by crusting agent whereas the prior section provides an option of seeding or crusting agent dependent upon the season. Please clarify.

Response: Crusting agents, not seeding, will be used on stockpiles for stabilization.

Action: Revised text at end of first sentence of Item 3.4.B to read "without *stabilization*." [italics used to emphasize needed revision]

1726

145) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02268 Pg. #: Line #: Code: C
Comment: The specification contains no requirement to dismantle/remove the remediation water transfer lines upon completion of the project. Ohio EPA recommends incorporation of removal of these lines to ensure certification can be completed in the area.

Response: Comment is assumed to apply to Specification 02668 Transfer Line. The STP excavation sumps, pumps, and transfer line need to remain until Sector 3 is certified. The subsequent removal of these will be addressed via turnover to a follow-on contract (e.g., subsequent OSDF phase, Relocated Phase II North Access Road, etc.).

Action: Specification 02668 was revised in accordance with the revised water management approach (see the response and action to Comment No. 73).

146) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02850 Pg. #: Line #: Code: C
Comment: Ohio EPA recommends the addition of ASTM Standard D4873-95, Standard Guide for Identification, Storage, and Handling of Geosynthetic Rolls.

Response: Noted. Specification 02850 has been deleted from the STP Excavation design package.

Action: No action.

147) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02850 Pg. #: 14 Line #: 3.1B Code: C
Comment: Additional detail should be provided regarding the requirements of the finish grade. Stating the "finish grade does not contain rocks" can be viewed as overly stringent or insufficiently conservative dependent upon the definition of a rock. Ohio EPA recommends use of finish grade specifications similar to that used in the OSDF construction.

Response: Noted. Specification 02850 has been deleted from the STP Excavation design package.

Action: A1PII will evaluate OSDF specifications for finish grade specifications and will incorporate appropriate text changes.

148) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02850 Pg. #: 23 Line #: 3.2W Code: C
Comment: Additional detail should be provided regarding disposal of railroad ties and pressure treated lumber in the OSDF and how such disposal will be compliant with OSDF organic material requirements.

Response: Per discussion with OSDF, railroad ties and other pressure treated lumber are acceptable for disposal in the OSDF as Category 4 material as long as they meet physical WAC requirements. However, Specification 02850 has been deleted from the STP Excavation design package.

Action: No action.

149) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02900 Pg. #: 5 Line #: 2.1G Code: C

Comment: It is unclear why "asphalt emulsion tackifier" is required in this specification whereas in specification 02270.2.1.G "asphaltic type emulsions" are specifically prohibited. If it is inappropriate to use for a dust suppressant, it would seem equally unacceptable for seeding.

Response: Noted.

Action: Specification 02900 was revised to specify pine sap emulsion for mulch stabilization.

150) Commenting Organization: OEPA Commentor: OFFO
Section #: Tech Specs. 02900 Pg. #: 3 Line #: Code: C

Comment: Ohio EPA believes the current seeding specification may negatively impact final restoration and should be revised. Ohio EPA proposes evaluating seeding/stabilization requirements based upon the duration the area will remain undisturbed. For areas that will be disturbed within a period of 2 years following seeding, Ohio EPA recommends use of a crusting agent for all soils going to the OSDF and for other areas use of temporary seeding (annual rye). For areas in which disturbance is not expected within 2 years, Ohio EPA recommends the use of native prairie grasses for revegetation and stabilization. Prairie grasses should be sown using a seed drill at a rate of 10 lbs/acre into a prepared bed and covered with blown straw mulch at a rate of 2 tons/acre. No fertilizer is recommended when planting these grasses. The grass mixture should include Canada Wild Rye, Little Bluestem, Big Bluestem, Indian Grass, Switch Grass, Side-Oats Grama; proposed ratio of 2:2:3:2:0.5:0.5, respectively. Use of native prairie grasses will hopefully support final restoration as well provide some temporary habitat to compensate for the large losses of habitat occurring during remediation. Ohio EPA hopes to work with DOE to optimize the seeding mixture and planting time over the course of site remediation, therefore to the extent practical contracts should allow flexibility in seeding mixture and planting time.

Response: See the response to Comment No. 61.

Action: The seeding specifications have been revised in accordance with the SEP guidelines (referenced in the response to Comment No. 61) for temporary seeding and seasonal planting.

151) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: Tech Specs. 02999 Pg. #: General Line #: Code: C

Comment: Pipe insulation is only referred to in the execution section (3.0). It should be included in the general and product sections; an insulation product should be specified.

Response: As presented during the joint EPA-FEMP Soil Progress meetings, the design has changed such that exposure of GW-24" will not occur, and thus insulation of GW-24" is no longer required.

Action: Specification 02999 Miscellaneous and Specialty Items was deleted.

51

152) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: Tech Specs. 03316 Pg. #: 1 Line #: Code: E
Comment: In Item 1.1.D, revise "...electric duckbank..." to "...electric ductbank..."

Response: Noted. Specification 03316 has been deleted from the STP Excavation design package.

Action: Other references to duct bank have been checked.

153) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: Tech Specs. 03316 Pg. #: 4 Line #: Code: E
Comment: Item 3.2.E.1 is missing text and currently does not make sense.

Response: Noted. Specification 03316 has been deleted from the STP Excavation design package.

Action: No action.

154) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: Tech Specs. 13205 Pg. #: General Line #: Code: C
Comment: No tank height or outlet information is indicated. It is, therefore, unclear from the specifications and drawings how suction will be maintained by the pumps to remove water from the tanks and how the direct transfer to tank trucks will be performed.

Response: The need for above-ground storage tanks has been eliminated in accordance with a revised approach to management of perched water and associated remediation-generated wastewater as presented in the response and action to Comment No. 73.

Action: Specification 13205, Tanks, was deleted.

155) Commenting Organization: OEPA Commentor: HSI-GeoTrans
Section #: Tech Specs. 15060 Pg. #: 9 Line #: Code: C
Comment: Section 02667 referenced in Item 3.4.A.4 does not exist and is indicated to be the source for the design pressure indicated in the table. In addition, the required information is also not available in Section 02668.

Response: Noted. Given the revised approach to managing remediation generated water, Specification 15060 has been deleted from the STP Excavation design package.

Action: No action.

CONSTRUCTION DRAWINGS

156) Commenting Organization: OEPA Commentor: OFFO
Section #: Dwg. G0005 Pg. #: Line #: Code: C
Comment: Ohio EPA recommends DOE evaluate soils designated as "potentially wet soil conditions area" but located outside the lead contamination area as possible source soils for wetland projects on-site. These "wet areas" may contain soils and associated seed banks that would be beneficial to on-site wetland restoration projects. If it is believed

these soils are below FRLs and BTVs the soil from these areas could be stockpiled separately and used to line proposed restoration wetland in the A1P1 sediment basin area.

Response: Noted.

Action: DOE will evaluate the "potentially wet soils" that exist outside the Lead Contaminated Soil Remediation Area for use in wetlands projects on site.

157) Commenting Organization: OEPA Commentor: OFFO
Section #: Dwg. G0009 Pg. #: Line #: Code: C
Comment: Ohio EPA does not concur with the proposed plan for regrading the sediment basins but recommends regrading the area to support wetlands. The area currently supports some wetland vegetation suggesting the viability of such an effort. Additionally, DOE has delayed implementation of wetland mitigation work in the Northern Woodlots emphasizing the need for near term work in other areas of the site. The IRDP should be revised to include incorporation of a small wetland system into the area previously occupied by the A1P1 sediment basins following certification of the area.

Response: DOE has prepared a revised wetland mitigation strategy which will expedite the schedule for design and implementation of wetland mitigation, which will be a separate project from A1PII restoration. The restoration schedule, which was proposed to the Fernald Natural Resource Trustees in December 1997 and incorporated into the FY99 Replan, includes wetland mitigation design in 1998 and design implementation in 1999. The revised strategy encompasses the sediment basins located in the northeast corner of the site. The use of existing sediment basins in A1P1 will be considered during wetland mitigation design.

Action: Text was added to the IRDP to indicate the separate submittal of the wetland mitigation design and to clarify the planning for Area 1, Phase I wetland mitigation design.

158) Commenting Organization: OEPA Commentor: OFFO
Section #: Dwg. G0009 Pg. #: Line #: Code: C
Comment: This figure and others referencing areas altered by construction of the OSDF and North Entrance road should be revised to show as-built topography, structures and facilities. Use of up-to-date base maps is important to a bidding contractor as well as agency reviewers in understanding proposed work activities and their impact/coordination with existing features.

Response: Noted.

Action: Design drawing base maps were updated to provide current existing conditions critical to the bidding process.

159) Commenting Organization: OEPA Commentor: OFFO
Section #: Dwg. G0011 Pg. #: Line #: Code: C
Comment: The reviewer is unable to discern from the drawings the design of the A1PII borrow area. Details including drainage, depth of excavation, slope, etc need to be included in the IRDP package.

Response: See response to comment 71.

Action: No action.

160) Commenting Organization: OEPA Commentor: OFFO
Section #: Dwg. G0020&21 Pg. #: Line #: Code: C
Comment: It may be beneficial to include CU boundaries on the "Initial" plate to show which areas will and won't be certified along with the changes in access control. This will clarify if the access controls relate to certified areas or not.

Response: Including the CU boundaries on the initial plate would clutter the drawing and may cause confusion to the contractor. Rather, the Certification rope fence, which designates the administrative entry requirements for certified areas, will be shown on the Access Control drawings. The CU boundaries have been previously communicated to the U.S. EPA and Ohio EPA in letter DOE-0580-98, Reising to Saric and Schneider, "Revision to Certification Design Letter for Area 1, Phase II-Sector 1, 2a, and Conveyance Ditch," dated March 17, 1998.

Action: The Certification rope fence is shown on the Access Control drawings.

161) Commenting Organization: OEPA Commentor: OFFO
Section #: Dwg. G0023 Pg. #: Line #: Code: C
Comment: Ohio EPA recommends re-evaluation of the use of railroad ties in the decon facility due to the contaminants which they may contribute to the decon water waste stream.

Response: The equipment wash facility has been deleted from the STP Excavation design package.

Action: No action.

ADDITIONAL SUBSEQUENT COMMENTS

1A) Commenting Organization: OEPA Commentor: DSW
Section #: Dwg. G0015 Pg. #: Line #: Code: C
Comment: We have experienced problems with small diameter drainage in that the pipe tends to plug. The preferred configuration is similar to that found in the sediment basin for the OSDF where the large diameter riser pipe (e.g. 72" vs 8") has the 1" holes. Design should follow the 100% drawdown specifications in *Rainwater and Land Development*. Additionally the riser should be wrapped with wire mesh then double wrapped in geotextile (*Rainwater and Land Development*, page 105).

Response: The method of using a stone filter to protect holes in the 8" diameter riser from clogging has worked well in other recent applications at the FEMP. The method was used to replace a riser which was wrapped in geotextile which then became clogged after an early rain. In addition, a silt fence will be added in front of the stone/riser to further protect the riser from clogging. The basin geometry has been changed since the November 1997 issue to provide a sump to store up to the cleanout volume, based on 27 cubic yards per acre of drainage area. This is consistent with ODNR "Rainwater and Land Development" sediment basin dewatering Option 1, 60% Drawdown.

Action: No action.

2A) Commenting Organization: OEPA Commentor: OFFO
Section #: Dwg. G0014 Pg. #: Line #: Code: C
Comment: This sediment basin is long and narrow. To optimize settling of fines flow should be baffled through this basin. For example, plastic construction fencing could be installed across the basin to slow flow (see *Rainwater and Land Development*, page 101 and 109). Side slope is recommended not to exceed 2:1 for safety reasons (see *Rainwater and Land Development*, page 101).

Response: The design of the sediment basin has been improved to reflect a two feet deep, flat-bottom sump for the collection of sediment. The flat-bottom concept is consistent with the current American Society of Civil Engineer's Best Management Practices theories for improved settling performance and to minimize flow velocity. It is believed that the fence would not provide any significant flow baffling and that could interfere with sediment cleanout. The sedimentation basin maximum sideslope is 3:1.

Action: No action.